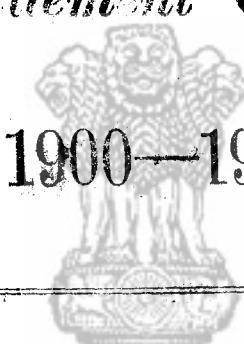


SETTLEMENT REPORT
OF THE
KOHAT DISTRICT,

North-West Frontier Province.

BY
C. A. BARRON, Esquire, C.S.,
Settlement Officer.



1900—1905.

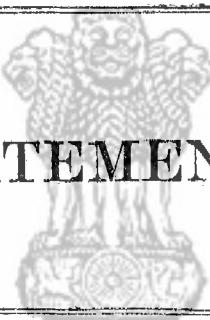
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1907.

STATEMENTS.



सत्यमेव जयते

KOLKATA AREA.

AVERAGE AREA OF CROPS.

Tahsil.

District.

Remarks.

Revenue assessment.

Tahsil.

District.

Remarks.

Tahsil.		District.		Revenue assessment.	
Irrigated.	Un-irrigated.	Irrigated.	Un-irrigated.	Acres.	Rupees.
28,741	85,511	3,201	3,071	3,220	21,000
285,958	59,344	21,842	27,502	5,572	81,485
7,375	7,096	7,375	7,096	18,881	16,068
105,698	6,481	3	3	5,158	3,200
Total	68,431	25,196	43,238	38,254	4,200
182,500	19,196	4,478	14,708	18,882	12,776
12,447	887	4,741	8,781	12,178	35,875
Total	38,691	5,281	24,370	82,050	16,000
281,058	41,317	4,16	40,881	26,270	6,058
184,006	38,373	720	38,103	24,155	23,824
36,012	230,729	41,399	609	40,790	811
118,117	174,605	65,917	5	65,912	23,824
196,193	9,964	397	9,767	6,961	30,400
Total	877,598	192,470	2,617	194,435	8,200
District	217,865	20,562	86,443	214,950	180,189
	1,725,085	20,562	86,443	214,950	Rs. 269,852

*One year's return only.

III

STATEMENT NO. 2

SHOWING THE RESULTS OF CROP EXPERIMENTS CONDUCTED DURING THE FIVE YEARS,
1910 TO 1914.

Crop.	Soil	Circle	Number of experiments.	Area in acres.	Outturn of grain per acre in sera.		Outturn of straw per acre in sera.
					2	3	
Wheat	Chah	Toi	3	3.65	387	523	
		Kuz Miranzai	6	8.6	401	584	
		Darra	1	1.88	185	349	
		Nari-Chauntra	8	5.23	585	757	
	Chashmai defasi	China	3	5.14	699	785	
		Toi	8	12.62	347	555	
		Bar Miranzai	4	8.91	434	466	
		Kuz Miranzai	6	7.7	433	452	
		Seni-Khwaram	5	7.14	377	409	
Chashmai ekfasli	Chashmai	Nari-Chauntra	7	1.94	385	426	
		Lawaghar	3	4.67	416	485	
		China	1	1.19	242	326	
	Defasi	Toi	6	13.11	362	514	
		Kuz Miranzai	3	3.58	334	377	
Abi defasli	Abi	Nari-Chauntra	1	1.6	295	450	
		China	7	4.92	363	384	
		Toi	3	7.11	388	473	
		Bar Miranzai	4	5.76	526	906	
		Kuz Miranzai	5	5.82	522	735	
Abi ekfasli	Defasi	Seni-Khwaram	3	2.67	327	348	
		Darra	1	1.0	210	252	
	Ekfasli	China	6	3.07	360	313	
		Toi	4	11.32	340	494	
		Average produce on irrigated soils		33	330.65	419	317
Tulabi	Tulabi	Toi	1	2.97	285	343	
		Bar Miranzai	2	1.84	305	346	
	Bandiza	China	1	2.3	37	504	
		Kosi	3	2.4	57	684	
		Shakardarra	1	2.5	29	222	
		Bar Miranzai	1	3.0	57	67	
		Kuz Miranzai	1	2.2	42	258	
		Seni-Khwaram	2	5.25	356	297	
		Darra	2	7.75	392	261	
		Nari-Chauntra	4	5.9	382	535	
Dagoba	Dagoba	Thal	3	7.05	453	535	
		Lawaghar	1	6.4	266	313	
		China	2	4.15	312	366	
		Toi	7	29.56	190	224	
		Kohi	2	11.275	297	423	
		Bar Miranzai	4	5.0	140	134	
		Kuz Miranzai	3	5.54	202	212	
		Seni-Khwaram	3	11.8	244	244	
Barani	Barani	Darra	3	7.88	249	250	
		Nari-Chauntra	5	13.6	288	294	
		Thal	9	34.1	249	277	
		Lawaghar	3	16.91	554	719	
		Average produce on unirrigated soils		121	335.45	2.7	312
		Chah	5	1.8	712		
		Nari-Chauntra	2	3.65	382	293	
		Toi	2	6.25	406	425	
Chashmai defasi	Chashmai	Bar Miranzai	1	1.4	414	437	
		Seni-Khwaram	3	4.67	368	468	
		China	2	4.13	39	188	
Chashmai ekfasli	Chashmai	Toi	2	5.79	132	643	
		Kuz Miranzai	3	4.37	55	466	
		Seni-Khwaram	3	4.37	55	466	
Abi defasli	Abi	Toi	1	0.37	762		
		Darra	1	1.9	553	405	
		Toi	1	1.5	456	496	

STATEMENT No. 2—continued.

1	2	3	4	5	6	7
Crop.	Soil.	Circle.	Number of experiments.	Area in acres.	Outturn of grain per acre in sors.	Outturn of straw per acre in sors.
		Kohi Shakardarra Seni-Khwarram Darra Nari-Chauntra Thal	8 2 1 1 1 3	3'625 2'0 1'175 '19 '57 4'53	225 512 366 111 272 247	162 463 855 79 172 209
Gram	Barani	Barani	...			
	Dagoba	Kohi	1	2'00	326	175
	Barani	Kohi Seni-Khwarram Nari-Chauntra Thal	3 1 1 10	11'28 '375 '57 36'24	185 320 420 295	177 693 516 222
Sarshaf	Abi ekfashi	Toi	1	1'28	257	...
Taramira	Barani	Kohi Seni-Khwarram	1 2	6'95 8'3	156 98	388 207
Rice	Chashmai dofashi	China Bar Miranzai Kuz Miranzai	2 1 3	1'43 '49 1'9	653 2,177 648	624 1,404 1,416
	Chashmai ekfashi	Kuz Miranzai	1	'28	514	660
	Abi dofashi	China Toi Bar Miranzai Kuz Miranzai Darra	3 1 2 5 1	3'23 3'025 1'7 5'11 0'41	892 968 1,356 754 515	866 566 1,351 1,090 976
	Abi ekfashi	Toi Bar Miranzai	5 1	6'82 1'27	420 945	415 1,008
Maize	Chahi	Kuz Miranzai Darra	1 1	1'25 1'64	608 595	840 410
	Chashmai dofashi	China Toi Bar Miranzai Kuz Miranzai Lawaghar	7 3 1 7 1	4'88 3'32 '36 6'51 0'68	642 520 1,114 571 228	1,230 669 1,389 905 ...
	Chashmai ekfashi	China Toi	1 1	5'44 1'00	467 269	598 293
	Abi dofashi	China Toi Bar Miranzai Kuz Miranzai	1 9 2 4	1'81 11'262 2'22 7'2	466 582 319 577	608 690 612 1,006
	Abi ekfashi	Toi Bar Miranzai Kuz Miranzai	2 1 2	2'7 1'55 3'76	563 371 601	823 861 970
	Talabi	Bar Miranzai	1	2'25	500	656
	Barani	Bar Miranzai Kuz Miranzai	5 1	3'86 1'04	271 347	441 806
Bajra	Chahi	Nari-Chauntra	9	7'4	625	1,508
	Chashmai dofashi Do. ekfashi	Do. Bar Miranzai	1 1	'95 2'78	689 115	...
	Average produce on irrigated soils			11	11'13	512
						1,508
	Bandiza	Toi Seni-Khwarram Darra Nari-Chauntra Thal Lawaghar	1 3 4 1 4 1	'8 11'8 5'94 '4 10'67 1'45	352 257 486 560 243 131	
	Dagoba	China Toi Kohi Bar Miranzai Kuz Miranzai Seni-Khwarram Darra Nari-Chauntra Lawaghar	4 1 8 1 2 4 2 2 1	7'13 1'16 9'54 1'93 2'21 18'23 4'75 1'7 2'5	244 172 201 373 214 268 294 187 472	

STATEMENT NO. 2.—concluded.

1	2	3	4	5	6	7
Crop.	Soil.	Circle.	Number of experiments.	Area in acres.	Output of grain per acre in sors.	Output of screw per acre in sors.
Bajra—dofash	Barani	Kohi	1	1375	89	139
		Sir cardari	5	170	210	564
		Bar Miranzai	3	566	344	546
		Kuz Miranzai	5	929	244	549
		Semi-Khwarrau	2	504	223	282
		Darra	6	2451	181	375
		Nari-Chauntra	7	1772	121	353
		Thal	2	835	285	625
		Lawaghur	1	37	287	516
		Average produce in irrigated soils...		67	166025	258
Jowar	Abi dofasli	Toi	1	115	271	552
		Tei	1	76	276	416
		Bandiza	2	80	258	397
			2	161	299	564
		Dagoba	1	219	78	200
			1	375	209	1,92
		Kohi	1	10	12	1,165
		Sir Miranzai	1	10	109	809
		Nari-Chauntra	2	69	45	445
		Thal	5	175	237	808
		Lawaghur	1	25	241	454
Mung	Abi dofasli	Bar Miranzai	3	96	178	199
		Kuz Miranzai	3	104	100	58
		Dagoba	1	64	110	266
			1	12	130	314
			1	21	188	433
		Bar Miranzai	2	114	160	364
		Bar Miranzai	2	15	104	237
		Darra	1	25	60	84
		Nari-Chauntra	3	462	83	226
		Thal	1	24	40	61
Kangri	Talchi	Kuz Miranzai	1	64	400	636
		Bar Miranzai	1	98	367	613
		Kuz Miranzai	2	93	139	233
		Kohi	1	51	39	41
		Kuz Miranzai	1	3	57	182
Methi	Abi dofasli	Bar Miranzai	3	256	78	206
		Lawaghur	1	275	72	168
		Bar	1	88	101	254
			4	531	146	386
			1	92	41	157
		Chashmai dofasli	1	58	71	...
		Obina	1	84	62	...
		Kuz Miranzai	1	30	27	...
		Toi	3	119	53	...
		Kuz Miranzai	1	98	406	...
		Bandiza	2	87	45	...
Ganj	Dagoba	Semi-Khwarrau	1	1675	135	...
		Kohi	1	19	126	...
		Steamed	3	412	97	...
		Kuz Miranzai	1	16	46	...
		Semi-Khwarrau	3	45	70	...
Ganj	Dagoba	Tei	1	25	17	...

STATEMENT NO. 3.

SOIL RATES USED BY THE PEOPLE IN THE BACHH OR INTERNAL DISTRIBUTION OF THE NEW REVENUE.

CIRCLE.	CHAH.	CHASHMAY DOASLI.	CHASHMAY ERASLI.			ABU NOASLI.			ABU ERASLI.			BANDZA (SAJLAB AND TALAM).			DAGORA.			BARANI			TOTAL.				
			Revenue.	Rate.	Area.	Revenue.	Rate.	Area.	Revenue.	Rate.	Area.	Revenue.	Rate.	Area.	Revenue.	Rate.	Area.	Revenue.	Rate.	Area.	Revenue.	Rate.	Area.		
Ac.s.	Rs.	Rs. a. p.	Ac.s.	Rs.	Rs. a. p.	Ac.s.	Rs.	Rs. a. p.	Ac.s.	Rs.	Rs. a. p.	Ac.s.	Rs.	Rs. a. p.	Ac.s.	Rs.	Rs. a. p.	Ac.s.	Rs.	Rs. a. p.	Ac.s.	Rs.	a. p.		
China ..	8 24 3 0	1,586 12,219	7 11 4	612 2,349	3 13 5	526 3,610	6 13 1	337 1,414	4 3 6	96 103 1	0 10 1	1,948 1,204	0 9 11	174 67	0 8 0	5,290	21,000	3 15 6	48,640	78,456	1 9 7	42.			
Toi ..	264	718 2 11	6 3,64 16,695	5 6	9 5,588 10,330	1 13 4	2,743 12,207	4 7 2	9,993 19,018	2 0 0	8,848 7,156 1	0 0 10	16,232 10,162	0 10 0	3,916 1,439	0 5 11	48,640	78,456	1 9 7	42.					
Kohi ..	11	43 3 14	6 64	351 5 8	8 19	46 2 6 9	...	...	...	16	8 0 8 6	2,723 1,092	0 6 5	1498 1498	0 8 7	4,321	18,87	0 7 0					
Shakardarya		
Kuz Miranzai ..	290	866 2 15	9 937	5,979 6 6	1	730 2,816	3 13 11	1,341 8,441	6 1 1	989 989	3,324 3 5 10	1,903 1,903	3,343 3 5 10	1,903 1,903	1 11 2	10,848 10,848	9,136 9,136	0 13 6	1,876 1,876	1,284 1,284	0 10 11	19,036	35,228	1 13 7	
Bar Miranzai ..	65	124 1 14	6 931	3,743 3 12	5 2,240	3,831 1 11 5	790 2,725	3 7 2	672 1,265	1 14 2	420 420	505 505	1 3 3	4,309 4,309	2,316 2,316	0 8 7	4,047 4,047	1,348 1,348	0 5 4	13,524	15,848	1 2 9			
ext-Ehwarran ..	97	182 1 14	0 68	258 3 12	8 39	101 2 9 5	163 600	3 10 11	69 163	2 5 10	4,972 4,765	0 15 0 15	422,865 11,539	0 8 1	10,394 10,394	3,611 3,611	0 5 5	58,687 58,687	21,119 21,119	0 8 9					
Darr ..	117	220 1 14	1	11	14 1 4	4 263	692 2 5	3 122	155 1 4 9	3,230 3,895	1 3 3	13,210 9,513	0 11 5	11,609 11,609	6,021 6,021	0 8 2	28,852 28,852	20,503 20,503	0 11 4				
Nari-Chontra ..	434	1,570 3 9 10	75	206 2 11 11	79	138 1 12 1	...	...	18 20	1 1 9	2,556 2,930	1 1 1	9 9,279 7,210	0 12 5	23,815 23,815	13,017 13,017	0 8 8	36,256 36,256	24,991 24,991	0 11 0			
Tbil ..	5	6 1 6 0	0	7,719 8,871	1 2 0	2,312 1,246	0 8 7	43,932 43,932	16,265 16,265	0 5 11	53,978 53,978	26,186 26,186	0 7 9			
Lawaghar ..	8	7 6 14 6	191	219 1 12 11	59	30 0 8 2	340 218	0 10 0	4,451 1,612	0 5 10	4,935 4,935	1,105 1,105	0 3 7	19,191 19,191	3,186 3,186	0 5 2			
District	1,239	3,759 2 14 4	6,295 3,935 5 11	9,373 19,523	2 1	5,906 23,255	4 12 6 12,200	26,267	2 2	5 28,639 32,056	1 1 1 1 1	9,111 9,111 66,679	0 9 11	102,880 102,880	46,053 46,053	0 6 9	265,812 265,812	2,52251 2,52251	0 15 2						

STATEMENT No. 4.

EXPENDITURE INCURRED ON THE SETTLEMENT BETWEEN 1st OCTOBER 1899, AND MARCH 31st 1906.

Detail.	Total expenditure.
	Rs.
Salary and Settlement allowances of Gazetted Officers ...	1,47,544
A. -- OFFICE ESTABLISHMENT.	
(1). Office Kanungos	10,577
(2). Menial Establishment	11,092
Total Office Establishment ...	30,669
(B). -- FIELD ESTABLISHMENT.	
(3). Settlement Tahsildars	17,895
(4). Settlement Naib Tahsildars	23,402
(5). Field Kannngos	19,126
(6). Field Allowances	4,629
Total Field Establishment ...	65,052
(7). Temporary Establishment	28,018
Total pay of Establishment ...	1,23,784
(8). Travelling allowance of Officers	8,764
(9). Do. do. of Establishment	4,946
(10). Contingent Expenditure except Stationery and Lithography	24,466
(11). Stationery	4,159
(12). Lithography	425
Total Contingent Expenditure ...	29,050
GRAND TOTAL ...	3,14,038

GOVERNMENT NOTIFICATIONS RELATING TO THE SETTLEMENT.

Punjab Government Notification No. 232, dated the 10th October 1899.

Whereas it appears to the Honorable the Lieutenant-Governor that the existing records-of-rights for the estates included in the Kohat District require special revision, the Lieutenant-Governor in exercise of the powers conferred upon him by Section 32 of the Punjab Land Revenue Act, 1887, hereby directs that the records-of-rights of the said estates shall be specially revised.

Punjab Government Notification No. 233, dated the 10th October 1899.

Under Section 49 (1) of the Land Revenue Act, 1887, it is hereby notified with the sanction of the Governor-General in Council, that a general re-assessment of the land revenue of the Kohat District is about to be undertaken.

Punjab Government Notification No. 121, dated the 18th June 1900.

Whereas it appears to the Honorable the Lieutenant-Governor that records-of-rights for the estates included in the Bar Miranzai Circle of the Hangu Tahsil in the Kohat District do not exist, the Lieutenant-Governor in exercise of the powers conferred upon him by Section 32 of the Punjab Land Revenue Act, 1887, hereby directs that records-of-rights shall now be made for the said estates.

Punjab Government Notification No. 63, dated the 3rd February 1896.

In exercise of the powers conferred upon him by Section 32 (1) of the Punjab Land Revenue Act, 1887, the Honourable the Lieutenant-Governor is pleased to direct, and hereby directs, that the records-of-rights of the estates comprised in the Nilab Circle in the Naushahra Tahsil of the Peshawar District, shall be specially revised, and that the records-of-rights shall be prepared for the estates of the Khwarra Circle in the same tahsil under the orders of the Settlement Collector of the Peshawar District, who in the discharge of his duties shall not be subject to the control of the Collector.

Punjab Government Notification No. 177, dated the 15th October 1900.

In exercise of the powers conferred by sub-sections (1) and (2) of Section 27 of the Punjab Land Revenue Act, 1887, the Honourable the Lieutenant-Governor is pleased to confer, and hereby confers, upon Mr. C. A. Barron all the powers of a Collector under the said Act (with the exception of Chapter VI thereof) such powers to be exercised within the local limits of the Khwarra, Nilab Circle of the Naushahra Tahsil in the Peshawar District; and the Lieutenant-Governor further directs that in the exercise of these powers Mr. Barron shall not be subject to the control of the Collector.

Extract from the North-West Frontier Province Law and Justice Regulation No. VII of 1901

98. (1) For the purposes of the current re-assessment of the land revenue and of the revision of the record-of-rights of the districts of Kohat. * * *

* * * * * * * * *

the Settlement Commissioner of the Punjab and not the Revenue Commissioner of the North-West Frontier Province shall, save as regards appeals and references relating to headmen, exercise the functions of both the Financial Commissioner or a Financial Commissioner and the Commissioner of a Division under Sections 80, 82 and 84 of the Punjab Tenancy Act, 1887, and Sections 13, 15 and 16, and Chapters IV and V of the Punjab Land Revenue Act, 1887, respectively, in regard to all orders or decrees made or passed by a Settlement Collector or by an Assistant Collector employed on Settlement duties in the said districts.

Provided that nothing in this section shall be deemed to confer a right of appeal to, or a power of review or revision upon, the Settlement Commissioner of the Punjab in respect of any order or decree made or passed by him in exercise of a power conferred by or under any of the said provisions upon the Commissioner of a Division.

(2) This section shall remain in force, with regard, respectively, to the current re-assessment of the land revenue and revision of the records-of-rights of the districts of Kohat, * * * until the Local Government, with the previous sanction of the Governor-General in Council, by notification in the Gazette of India, declares that it shall cease to have effect, and no longer.

Notification No. 2116 G., dated 19th December 1903, by the Revenue and Financial Secretary to the Chief Commissioner and Agent to the Governor-General, North-West Frontier Province (Government of India Gazette, Part II).

In exercise of the power conferred by Section 93, sub-section (2) of the North-West Frontier Province Law and Justice Regulation, 1901 (VII of 1901), and with the previous sanction of the Governor-General in Council, the Chief Commissioner of the North-West Frontier Province is pleased hereby to declare that the provisions of the said section shall now cease to have effect with regard to the current re-assessment of the land revenue and the revision of the record-of-rights of the district of Kohat.

Rules for the Reduction of Revenue on Wells and other private Irrigation Works in the Kohat District when they fall out of use.

These rules apply to masonry wells, and also to wells and *jkalars* lined with stone, i. e., to *pakka* and *katcha-pakka* wells and *jhalars*, but not to unlined or only partly lined wells and *jhalars*. The rules also apply to irrigation works of a permanent nature such as watercourses, dams, embankments and tanks constructed at private expense. The expression "irrigation works of a permanent nature" is intended to exclude dams, embankments, etc., so constructed across *nullahs* and ravines as to require repair every season after rain or ordinary floods.

RULES.

1. When a well ceases to be fit for use from any cause, or when an irrigation work ceases to be fit for use through no fault of the owner or owners, the Deputy Commissioner shall remit so much of the assessment on the land irrigated from that well or work as is based on the profits of irrigation from it.

2. The Deputy Commissioner may grant a similar remission if the well or irrigation work, though still fit for use, has been out of use for four harvests, provided that no remission shall be given (1) in the case of wells if the disuse occurs in the ordinary course of husbandry, the well being intended for use only in seasons of drought, and (2) in the case of irrigation works if another irrigation work of a similar nature has been substituted for the original one.

Note.—The assessment based on the profits of irrigation from a well or irrigation work shall ordinarily be assumed to be as follows:—

- (i) Where a lump sum has been assessed on the irrigated land in addition to an unirrigated rate—such lump sum,
- (ii) Where a lump sum, inclusive of an unirrigated rate, has been assessed—such lump sum after deducting the unirrigated rate,
- (iii) Where the distribution of the assessment has been by soil rates—the difference between the actual assessment at *chahi*, *chashmai*, *abi*, *talabi* or *bandisa* rates—as the case may be, and the assessment brought out by the application of the rate on the highest class of *bárán* land in the village or where there are no differential soil rates in the village the settlement rate on the highest class of *bárán* land in the circle,
- (iv) Where the distribution of the assessment has been by all-round rate—the difference produced as in (iii) between the rates if any framed by the Settlement Officer for the estate, and if no such rates were framed, the difference between the rates sanctioned for the circle,
- (v) Where the land has become unculturable (*ghair mumkin*)—the whole assessment on the holding or holdings affected.

3. Cases not sufficiently met by the remission under Rules 1 and 2 of the assessment based on the profits of irrigation, should be referred for the orders of the Revenue Commissioner.

4. In deciding whether to use the discretion given to him by Rule 2, the Deputy Commissioner shall consider whether the disuse of the well or irrigation work is due to some cause beyond the control of the landowner, such as the spread of salts in the soil, the adverse action of hill-torrents or floods, the loss of tenants or cattle and the extreme difficulty in replacing them, etc.

5. Except with the sanction of the Revenue Commissioner, no remissions shall be given under these rules if the assessment of the estate is so distributed that persons other than the person or persons who directly benefitted by the irrigation from the well or irrigation work, would reap the advantage thereof.

6. When a remission is granted it shall take effect from such harvest as the Deputy Commissioner may determine.

7. When new *pakka* and *katcha-pakka* wells or irrigation works of a permanent nature are constructed at private expense to irrigate land, protective leases exempting the land from an enhancement of assessment shall be granted in accordance with the rules contained in paragraphs 502 to 505 of the Settlement Manual as recently revised by Correction Slip No. 14.

8. If a new well is made, or an old well repaired, or a new irrigation work of a better and more permanent quality substituted for an old one at private expense, and thereby land is irrigated in respect of which a remission has been granted under these rules, the re-imposition of the assessment shall ordinarily be effected in accordance with the rules in paragraphs 502 to 505 of the Settlement Manual as recently revised.

9. Where a well or irrigation work for which a remission has been granted is again brought into use, and no certificate of exemption is granted under Rule 8, the Deputy Commissioner shall reimpose the whole of that portion of the assessment which was remitted from such harvest as he may determine. If the Deputy Commissioner thinks the whole amount should not be reimposed he should report the case for the orders of the Revenue Commissioner.

10. When a new irrigation work is constructed at public expense to irrigate land hitherto unassessed or assessed at unirrigated rates, the Deputy Commissioner should ascertain the amount by which the revenue on the land ought to be enhanced in accordance with the soil rates for the estate or circle, and obtain the orders of the Revenue Commissioner regarding the imposition of the whole or part of the enhancement from such harvest as he may determine.



FROM

THE HON'BLE LIEUT.-COLONEL SIR HAROLD DEANE, K.C.S.I.,

Chief Commissioner and Agent to the Governor-General,

North-West Frontier Province,

TO

THE SECRETARY TO THE GOVERNMENT OF INDIA,

DEPARTMENT OF REVENUE AND AGRICULTURE,

CALCUTTA.

Dated Peshawar, 8th January 1908.

SIR,

WITH reference to your letter No. 1703, dated 31st October 1907, I have the honour to submit, for the approval of the Government of India, a draft review of the Final Settlement Report of the Kohat District by Mr. M. F. O'Dwyer, Revenue and Financial Secretary, North-West Frontier Province, which embodies my own views on the subject.

2. I trust that the Government of India will be pleased to endorse my appreciation of the work of the Settlement Officer, Mr. C. A. Barron, C. S., and his Assistant, Rai Sahib Ganga Sahai. I take this opportunity of recording my obligations to Mr. O'Dwyer for his excellent work in connection with this Settlement. The Settlement Commissioner, Punjab, ceased to hold charge of the Kohat Settlement from the 19th December 1903, and the whole work of supervision fell to Mr. O'Dwyer. I cannot speak too highly of the manner in which he has discharged his duties in this respect.

I have the honour to be,

SIR,

Your most obedient Servant,

H. A. DEANE, LIEUT.-COL.,

Chief Commissioner.

Review of the Kohat Final Settlement Report.

THE Kohat District occupies most of the wild hilly country lying between the fertile plains of Peshawar to the north and of Bannu to the south. Natural features and rainfall.

Except on the east, where the Indus forms the natural boundary for a distance of over 60 miles, and on the south-west, where the district merges in the Banpu watershed, the configuration of the boundary is extremely irregular. It generally follows the watershed of the hills; which on the north divide Kohat from tribal territory of the Afridis, and on the south-east from that of the trans-border tribes held by the Afghans at one time; the area of the district, or about one-sixth, are under cultivation, about 350 square miles are returned as culturable waste, and the remaining 1,900 square miles—some 70 per cent. of the whole—are composed mainly of bare hill sides, often containing deposits of salt, arid rocks and deep ravines, all combining to form a dreary picture of barren desolation.

2. The sterner features are particularly marked in the Teri Tahsil and the Kohi and Shakardarra tracts of The Khattak country.

country,—which occupies nearly 70 per cent. of the total area, and with only 2,300 acres irrigated out of 26,000 acres of cultivation is dependent almost entirely on a small and rather precarious rainfall averaging 21 inches at Banda, but considerably less towards the southern and eastern borders. The arable land is restricted to the limited area of plain and valley, the hill sides being bare of vegetation and too bleak or too abrupt for cultivation. About 42 per cent. of the cultivation in this tract is under autumn crops, of which bajra (31 per cent.) is the chief; while in the rabi wheat (42.1 per cent.) and gram (12.2 per cent.) are the most important staples. The soil, a sandy or stony loam, though generally light, is cool, clean and wonderfully retentive of moisture. This valuable capacity of withstanding drought is often put to the test. The kharif crops are most liable to failure, as rain in the late autumn cannot be relied upon; while the spring crops, if assisted by moderate winter rains, are abundant and general failure is very rare.

3. The rest of the district is known as the Bangash country. It includes The Bangash country. the China and Toi circles of Kohat Tahsil, which are fairly open and fertile plains,

watered—as the names imply—by perennial streams and springs, and growing fine crops of maize, rice, wheat and barley, &c., nearly 60 per cent. of which are protected by the irrigation. The Miranzai Valley—forming the Hangu Kohat plain. It runs due west for a distance of nearly 60 miles to Thal, and is enclosed between the loftier Khewali Range which divides it from the Samana Range separating it from the Orakzai tract. In the Bangash tract the rainfall—18 inches at Kohat, 28 at Hangu, and 16 at Thal—is more favourable than in the Khattak country, but the soil is stiffer and the crops show the effects of a drought more quickly, especially in the two Kohat circles. Fortunately about 40 per cent. of the agriculture is safeguarded—on the east by irrigation from the Kohat Toi draining east to the Indus, and on the west by the springs and streams which flow into the Kurram at Thal, the western limit of the district. The agriculture of this tract is more varied and complex than that of the dry Khattak country. (owing to the prevalence of irrigation the kharif is the more important harvest. Maize (25 per cent.) is the kharif staple, and

in Hangu is partly grown on unirrigated land; rice (3 per cent.) and cotton (2·5 per cent.) are also generally grown, especially in the China Circle, and invariably irrigated; while bajra (21 per cent.) and mung (3·5 per cent.) are usually unirrigated. The rabi area is about 42 per cent. of the whole, and consists chiefly of wheat (35 per cent.) and barley (5 per cent.), the stiff texture of the soil making it unsuitable for gram.

4. The ethnographic and agricultural conditions closely follow the natural features. The Teri Tahsil and the Kohi and Shakardarra tracts of

Kohat are the home of the hardy, martial and enterprising Khattak race, who own nearly two-thirds of the district and form nearly half of the agricultural population. The sterling qualities of endurance, enterprise and courage which have won for the Khattaks so high a place among Pathan tribes are largely a product of their healthful but barren environment which has driven them to seek a livelihood as soldiers throughout the length and breadth of the Indian Empire—from Gilgit to Hyderabad and from Quetta to Mandalay.

The Hangu Tahsil and the more favoured tracts of Kohat (China and Toi) are inhabited mainly by the Bangash tribe of Pathans, which probably entered the district from the Kurram Valley and gradually displaced the Niazi Pathans, the Awans and other Hindki races. Awans, Niazis and Saiyids still hold scattered estates in Kohat. Along the western border there are several Afridi settlements—in a few cases holding as owners, more often as tenants; while the occupation of the Samana Range in 1891 has led to the inclusion in the district of several Orakzai hamlets which have now been formed into seven new estates, but as yet have been assessed only to a house-tax. The Bangash of the Upper Miranzai Valley exhibits the same hardy qualities as his Khattak neighbour both as an agriculturist and as a fighting man; his brethren of Lower Miranzai and Kohat are—probably as a result of the easier conditions under which they live—a softer, more indolent, and less manly race. All the tribes are equally imbued with the Pathan feelings of jealousy, faction and hereditary feuds. Murder and crimes of violence in pursuance of the vendetta or over some sudden quarrel are common, but they differ from the other Pathan tribes under our rule in not resorting so freely to the law courts to carry on their quarrels; and reckless or frivolous litigation, though not unknown, is comparatively rare. The tribal and village organization, probably in consequence of the geographical position which renders combination for protection essential, still shows more signs of cohesion than in tracts where greater security has lessened the need for common action and loosened the tribal and village bonds.

5. Between 1881—when the first complete census was taken—and 1901 the population increased from 171,620 to 217,681—a rise of 27 per cent. This

Population. growth is the more significant because within the period there was little, if any, expansion of cultivation. The incidence of population varies from 319 per square mile of cultivation in the sterile Teri Tahsil to 763 in the rich Miranzai Valley, and averages 414 for the district. There is no town of any importance outside Kohat (population 30,762). The population dependent more or less directly on the soil is roughly 190,000, almost exclusively Muhammadan, and no less than 70 per cent. belong to the Pathan tribes.

6. The democratic instincts of the Pathan accentuated by the Islam doctrine of the equality of its followers are illustrated by the fact that the

Tenures, owners and cultivation. system of *vesh* or periodical redistribution of the soil among all the members of a community was in places maintained up to the recent Settlement. The same causes have produced the agricultural organization typical of purely Pathan tracts; a numerous class of small peasant proprietors working their own lands, with few large holdings—except those given by past or present rulers to individuals as a reward for services or acquired by the strong hand during periods of anarchy or disorder—and consequently with little room for a subordinate body

of tenants and little necessity for the services of the village menials, who play so important a part in the village economy of cis-Indus districts. It appears that out of a total population of 190,000 there are no less than 54,000 owners, with an average area of $5\frac{1}{2}$ acres of cultivation per head, so that almost every able-bodied male is a present or prospective proprietor. The owners hold 60 per cent. of the cultivation in their own hands, and of the occupancy tenants, who hold 8 per cent. (chiefly in Crown lands and the private estates of the Teri Khan), and tenants-at-will, who hold 31 per cent., a very large proportion are owners cultivating land outside their own holdings.

7. The district as a whole in an ordinary year produces grain enough to feed the rural, but not enough to feed the total, population, including the residents of the town and cantonment. Certain tracts, like the Thal and Nari Chauntra Circles in Teri, have surplus after supplying local needs, but others are not self-supporting. With a steadily growing population the situation would therefore be a serious one were the people dependent solely on their agriculture. Fortunately they have many sources of income in their pastoral produce and the other products of the waste land.

8. The income from cattle, sheep and goats is put by the Settlement Officer at Rs. 2,41,000—a very lenient estimate; the land-owners (outside the Lawaghlar Circle) in Teri receive annual allowances of about Rs. 40,000 from Government, representing their share of the income derived from the salt mines of the Khattak hills, and earn another Rs. 15,000 by working as miners; the Hangu and Darra villages derive a considerable income from the sale of the dwarf palm; while the poorer Khattaks generally eke out a living by working as carriers of the extensive local trade in salt, grain, &c., with Peshawar and Bannu.

The most assured source of income is, however, that from Government service. No less than 3,600 of the rural population are serving in the Army (2,227), Frontier Militias and Border Police (1,373), and 663 in other departments. In other words over 10 per cent. of the able-bodied male population are in the military service of the State,—a proportion probably not exceeded in any district of Northern India,—and the field of employment is steadily expanding. The income derived from service alone is about $6\frac{1}{2}$ lakhs, which is more than double the new land revenue, and the total income from miscellaneous sources exceeds 10 lakhs. This subsidiary income considerably relieves the pressure on the soil, and also accounts for the peculiar fact that the growth of population and steadily increasing value of land have not up to the present Settlement been accompanied by any appreciable extension of cultivation in the large area of culturable waste.

9. In paragraphs 18 and 19 of the Report an interesting account is given of the alienations of land by sale and mortgage. The figures at first sight are rather portentous. Since last Settlement (an interval of 25 years in Kohat and Hangu, 17 years in the Barak and 10 in the Khattak tract of Teri) no less than 50,000 acres, or 17·4 per cent. of the cultivated area, have been sold for 17 lakhs of rupees, giving an average of Rs. 3 $\frac{1}{4}$ per acre, and 63 years' purchase of the land revenue of the area transferred. The proportion of transfers is highest in Kohat (31·6 per cent.) and lowest in Teri (12·3 per cent.). Similarly since last Settlement the area under mortgage has risen from 58,000 to 71,000 acres, and now amounts to 24 per cent. of the total cultivation (11 per cent. in Kohat, 6 in Hangu, and no less than 32 per cent. in Teri). The mortgage debt is nearly 21 lakhs of rupees (Teri alone accounts for $15\frac{1}{2}$ lakhs), equivalent to about 50 years' land revenue on the area transferred, and it has risen by nearly 9 lakhs since last Settlement. When closely examined, however, those figures lose much of their significance. Only one-ninth of the area sold and one-fifth of the area mortgaged has passed into the hands of non-agriculturists; the rest of the alienations have been among the land-owners themselves. The Pathan ideas

of individual property and freedom of transfer ; the peculiar system of tenures, especially in Teri, where the fields of a single proprietor may be spread over several estates, or over all the natural divisions (*veshes*) of one estate ; the great number of proprietors absent on service ; the marked disproportion between the sexes (5 males to 4 females), which has appreciated the value of women as wives, all tend to encourage alienations between the members of a tribe or community, while a large proportion of the transfers shown as sales or mortgages appear to be really either temporary or permanent exchanges to facilitate cultivation.

Meantime the value of land has been steadily rising, and a comparison of Mr. Barron's figures with those given in paragraph 330 of the old Settlement Report shows that in Kohat and Hangu the price has risen from 35 years' purchase in the years prior to 1878 to an average of 60 years' purchase in the period 1878—1902. Nor has the recent enhancement of the land revenue had any effect in depreciating the value. The sale statistics of the years 1903-04—1906-07 show that the average price obtained is now 62 years' purchase of the new assessment.

10. The fiscal history of the district, and especially of the Teri Tahsil, since annexation is rather complicated.
Fiscal history (Kohat and Hangu). It has been very clearly explained in Chapter II of the present Report and discussed at some length by the Chief Commissioner in his reviews of the Assessment Reports. The three Summary Settlements of 1849-50, 1851-52 and 1854-55 considerably reduced the revenue realized by the Sikhs in Kohat and Hangu. The Regular Settlement of those two tahsils carried out by Major Hastings took effect from 1878, and in certain areas from 1881. Though nominally based on the half assets principle, it was even when introduced a very lenient one, the leniency being justified by the circumstances of what was then one of the most remote, backward and turbulent tracts under our rule. Owing to the very liberal grant of frontier remissions for border service—15 per cent. of the total—the realizable demand of the previous Summary Settlements was reduced by about 7 per cent., with the result that up to the recent revision the revenue realized from the tracts for which statistics are available, *viz.* the Bangash Circle of Kohat and Lower Miranzai, was considerably less than the Sikh Durbar and the Barakzai Governors had taken 60 years before.

11. The Western Khattak country included in the Teri Tahsil is on a peculiar footing. The Khan of Teri as Fiscal history (Teri). Chief of the Western Khattaks had since Moghal rule enjoyed a semi-independent position, paying tribute to the ruler for the time being and realizing the State share, together with many feudal dues and services, from his tribesmen. Prior to annexation the tract was leased to him for an annual payment of Rs. 40,000 in cash, besides 10 horses and 20 camels. Since annexation his status has gradually been altered by the Settlements of the Barak tract in 1882—1885, of the Khattak country in 1893—1895, and the present re-settlement to that of a superior owner entitled only to collect a fixed revenue in cash and to certain other dues sanctioned by Government, *viz.* *tirni* or grazing fees, *bua*, a house-tax on non-agriculturists, and *kulhari*, a tax on wood-cutting in certain localities.

In the meantime the quit-rent due to Government by the Chief has been steadily reduced and fixed in perpetuity partly in recognition of the Chief's signal services in the Second Sikh War, the Mutiny and the Afghan War, and partly as compensation for the abolition of certain oppressive cesses. It now stands at Rs. 25,000 per annum, of which Rs. 5,000 is remitted as a *muajib*, subject to the condition of active and zealous loyalty and to the up-keep of 100 sowars for ordinary and 120 for extraordinary occasions.

12. The Settlement of the Kohat and Hangu tahsils favoured by the Working of the Regular Settlement in Kohat and Hangu general opening up of the country, the great improvement in communications which has brought every estate within *easy* reach of the railway, and the increased security consequent on the

occupation of the crest of the Samana Range in 1891 and the organization of the Border Police and Samana Rifles has worked very smoothly on the whole. In a country where the rainfall is not only small but liable to considerable seasonal variations, agriculture must necessarily be rather precarious, but the demand was so light that the people have had little difficulty in meeting it. Of a total sum of Rs. 38,000 suspended for failure of crops owing to drought only Rs. 4,470 was eventually remitted while about Rs. 17,000 was remitted for damage caused by locusts and hail. The Miranzai Valley from its position between two lofty ranges is particularly exposed to hailstorms, but the local revenue machinery has now had so much practice in dealing with these calamities that there is little danger of their being overlooked or improperly dealt with.

13. Mr. Tucker's Settlement of the Barak tract of Teri in 1885 has also worked satisfactorily, and the circle

Previous Settlements in Teri.

has developed in resources and increased

in prosperity during its currency, while there has been little friction between the Khan and his tribesmen. The fiscal history of the rest of the Teri Tahsil has, as pointed out in paragraph 6 of the Review of the Assessment Report, been less fortunate. The strained relations between the Khan and his tribesmen made a definition of their respective rights by a land revenue Settlement inevitable. The Settlement carried out between 1893 and 1895, while it finally disposed of the question of rights in the land, left many important matters still in issue; e.g. the Chief's right to certain cesses and the claims of the members of the Chief's section to revenue-free grants and certain other exemptions. The controversy had become so acute when the present re-settlement operations began that the Khan's authority to collect not only the *tirni* and *bua* cesses but also the talukdari right of $1\frac{1}{2}$ annas per rupee of land revenue fixed at Settlement was openly defied, and it was not until those dues were put on a definite legal basis by the passing of a Special Regulation (IV of 1902) that the agitation subsided.

14. Thus the re-settlement of the district as a whole was essential for both administrative and fiscal reasons.

Necessity for a re-settlement. The previous operations had been piecemeal and carried out at different times by different officers; the standards of assessment were far from uniform; the upper portion of the Miranzai Valley had never been even surveyed; and the Barak Settlement was nominally a summary one.

Mr. Barron's re-settlement has involved the revision of the work of at least three previous Settlement Officers, and this circumstance accounts for the length of the operations and the detail in which he has found it necessary to describe them.

15. The re-arrangement of assessment circles and classifications of soils described in Chapter IV of the Report

Irrigated area and crops.

follow well-marked natural distinctions

and provided a reliable basis for the assessment. The crop statistics were the average of the five years ending 1901-02 in Kohat and Hangu and ending in 1902-03 for Teri. In both cases the cycle was rather below the normal. Of the total cultivated area—294,000 acres—36,443 acres or about one-eighth are irrigated, while of the average area cropped (213,000 acres) about 38,000 acres or 18 per cent. are irrigated. The well-irrigated area (1,301 acres), though still small, has nearly doubled since the previous Settlement, and is steadily expanding in the limited areas where wells can be sunk. It is satisfactory to note that the light assessments imposed on wells by Mr. Barron, coupled with the free grant of protective leases (to 136 out of 445 permanent wells in use) and the efforts made to stimulate well-sinking in recent years by liberal *takavi* loans have been so successful. Within the last four years no less than 66 new wells have been sunk and the *chahi* area has risen from 1,301 to 1,601 acres.

The rest of the irrigation is from springs (China) and perennial streams, and there has been no increase in the area since the previous Settlement, though the area double-cropped shows some improvement, and the proportion of valuable crops has also risen.

16. No less than 87 per cent. of the cultivation and 82 per cent. of the Unirrigated area and crops. crops are directly dependent on the rainfall, which, owing to the broken and mountainous character of the country, is not only scanty in places, but very irregular in its distribution (paragraph 3 of Report). Hence the efforts made to intercept the rain water that runs off the enormous area of waste and mountain by means of embankments, which give rise to the higher qualities of unirrigated land known as *talabi*, *bandiza*, and *dagoba*, as opposed to ordinary *barani*, which is dependent on the rain that actually falls on it. The statistics given in the Assessment Reports (paragraph 20, Kohat-Hangu; paragraph 21 Teri) show that while the total cultivation has been stationary there has been a very decided increase in the superior classes, the purely *barani* area having receded from 218,000 to 128,000 acres. This justifies Mr. Barron's conclusion (paragraph 13) that there has been considerable improvement in the profits from agriculture due to the more careful development of the better classes of land.

17. Much has doubtless been achieved, though on a small scale, by the Action taken recently to extend irrigation and embankments. labour of the people in embanking their fields, diverting small torrents, &c., but the fact still remains that most of the great volume of water draining off the hills and wastes runs uselessly into the Indus. For the last six years measures have been taken to assist the people in carrying out larger works by free grants, and the local authorities have in several instances, where the work was costly and required skilled labour, undertaken it at the expense of the State. A sum of Rs. 43,478 has been spent by the State on such improvements since 1902-03 to the great benefit of many individual villages, and the policy should be steadily pursued. Within the same period advances to the extent of Rs. 76,074 have been made under the Land Improvements Act.

18. Mr. Barron has lucidly described in Chapter IV the process by which Data for re-assessment. from the average crop areas of five years, the assumed rates of yield, the commutation prices, and the landlords' net share of the produce he deduced the total value of the crops grown, of the landlords' share, and of the State's share at half of the net assets. His calculations and the conclusions founded upon them have been scrutinized and discussed in the orders on his Assessment Reports, and it is sufficient to note here (1) that the statistics of cultivation and crops (matured and failed) on which his assessment is based were very favourable to the land-owners, as the average of the last four years is 331,000 acres of cultivation and 260,000 acres of crops against 293,000 and 213,000 respectively assumed by him; (2) that his rates of yield were very carefully worked out and probably approximated more nearly to the actual averages than is usually the case; (3) that his scale of commutation prices (of which the most important are wheat 28 annas per maund, barley 17 annas, gram and maize 24 annas, and bajra 23 annas), bringing out a rise in the value of agricultural produce as compared with previous Settlements of 40 per cent. in Kohat, 45 per cent. in Hangu, 30 per cent. in the Barak, and at least 10 per cent. in the Khattak circles of Teri, was an extremely cautious one for Kohat and Hangu, which by the extension of metalled roads and the construction of the Khushalgarh-Kohat-Thal Railway are now within easy reach of an excellent market and fairly full for Teri, which has not the same facilities; (4) that there has been no marked rise in the rent rate except in certain circles where the pressure on the soil is considerable; (5) that the rise in prices and in the rent rate, however much they may justify a theoretical enhancement of the revenue by the half assets calculation,

have to be accepted with great caution in tracts which are not self-supporting, where the owners have to purchase food-grains to supplement the home production, and where the tenants paying the increased rent rate are themselves petty proprietors.

19. Apart from the above considerations, the main circumstances justifying an increase in the demand were
 Reasons for enhancement. that the revenue imposed at last Settlement was very light at the time; that many of the reasons which then called for such leniency have since disappeared altogether or been greatly modified; that though there has been no extension of cultivation its efficiency has been materially improved; that there has been a great all-round rise in the prices of agricultural produce; and that while the land revenue is calculated solely on the profits of agriculture, the land-owners have many and valuable sources of income from their cattle, waste lands, salt inams (in Teri) and service under Government.

20. The following table shows for each tahsil and the district as a whole (1) the old demand prior to revision; (2) the total value of the agricultural produce as now calculated; (3) and (4) the landlords' net share and the half net assets deduced from (2); (5) the total *final* demand now imposed; (6) and (7) the proportion of the total produce and half net assets represented by the new demand; (8) the percentage of enhancement:—

Tahsil.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Rs.	Rs.	Rs.	Rs.	Rs.			
Kohat	75,017	6,80,560	2,84,822	1,42,161	1,09,985	16	77.6
Hangu	30,500	4,31,430	1,64,634	82,817	59,925	14	72.6
Teri	88,401	11,19,210	3,00,562	1,50,281	1,08,032	9.5	72
Total	...	1,93,918	22,31,200	7,49,518	3,74,759	2,77,942	12.5	74.6
								43

The final new demand is therefore equivalent to one-eighth of the gross produce, is a little below three-fourths of the half net assets, gives an enhancement of Rs. 94,000 or 43 per cent. on the old demand, and an incidence of Re. 0-15-0 per acre cultivated, Re. 1-4-6 per acre of matured crops, and Re. 1-7-6 per head of the rural population. As frontier Settlements go, it is a moderately full one, the percentages of the net assets and of enhancement in adjoining districts recently settled being as follows:—

District.	Year of Settlement.	Percentage of net assets.	Percentage of enhancement.
Peshawar	...	1895	52 + 29
Kurram Valley	...	1905	50 + 180
Hazara	...	1905	55 + 67
Bannu	...	1907	59 + 66
Dera Ismail Khan	...	1908	75 + 24

The incidence has, however, been considerably mitigated by (1) the initial remissions for three years granted to all estates where the final demand, if imposed at once, would involve a heavy enhancement and the deferred assessment in Upper Miranzai; (2) the grant of remissions for frontier service to border villages for the term of Settlement; (3) the great expansion of cultivation (37,000 acres) which took place directly the assessments were announced.

Initial remissions for three years and progressive assessment in Upper Miranzai.

21. The temporary remissions for the first three years were as follows:—

					Rs.
Kohat	...	...	...	...	8,302
Hangu (Lower Miranzai)	...	...	...	...	3,163
Teri	...	...	...	...	5,891
					<hr/>
	Total	...			17,356

In Kohat and Hangu, where the new assessment came into force from the Kharif of 1903, the full revenue has been realized from Kharif 1906. In Teri it comes into force from the Kharif of 1907.

The circumstances of the Upper Miranzai Circle demanded special treatment. Major Hastings had made no revenue survey of what was at the time a remote and disturbed tract, and the assessment imposed by him—Rs. 7,318—was at the time of revision only nominal. The circle has profited more than any other part of the district by the changes since last Settlement; it is now traversed by the railway and protected from trans-border raiders by the garrisons of the Samana and Thal and a strong body of Border Military Police. Hence the agricultural development has been very rapid and is still proceeding. The half assets estimate came to Rs. 35,000. The case was essentially one for a lenient but progressive assessment, and it was decided to impose Rs. 16,000 at once (Rs. 16,050 has been announced), rising after five years to Rs. 20,000, and after ten years to Rs. 24,000—less one-fifth frontier remission in each case. The consideration thus shown has been much appreciated by the people, and, notwithstanding the large enhancement taken, not a single appeal was lodged against the assessment.

22. The origin and history of frontier remissions to border villages

Remissions for border service.

to secure their co-operation in the defence of the border have been described in

paragraph 38 of the Report and are referred to in paragraph 18 of the Chief Commissioner's orders on the Kohat-Hangu Assessment Report. They are confined to the Kohat and Hangu tahsils, where at the Regular Settlement a sum of Rs. 17,000 out of a total revenue of Rs. 1,08,430 was remitted on this account. Though subsequent changes have increased the general security, it was considered advisable not to abandon the valuable principle underlying those remissions, which have accordingly been carefully revised and maintained in a modified form. The amount so remitted out of the final demand is now Rs. 8,532 in Kohat and Rs. 8,703 in Hangu—a total of Rs. 17,135, representing about 10 per cent. of the total assessment of those tahsils. This liberal concession has been granted in consideration of active loyalty and ready service in border defence, and any failure to fulfil those conditions will justify its permanent or temporary withdrawal. If the objects are carefully kept in view and the conditions steadily enforced—which has not always been the case in the past—those grants should furnish an effective aid in the protection of the long and exposed border.

23. Deducting deferred and progressive assessments, frontier remis-

Net enhancement of total demand.

sions and protective leases for wells (Rs. 680) the initial net demand comes

to Rs. 2,36,271 against the previous net assessment of Rs. 1,77,922, an increase of about 32 per cent., and the final net demand—excluding frontier remissions—will amount to about Rs. 2,60,000—a rise of about 45.5 per cent. As Mr. Barron remarks, the increase, though heavy, is reached by easy gradations, and is not excessive when we consider how lightly portions of the district have hitherto been assessed.

24. The announcement of the new demand was on the whole well

Distribution of the demand over estates and holdings.

received by the people. Of 291 estates 91 presented applications to the Settlement Officer for reconsideration, and there were 22 appeals to the Revenue

Commissioner, of which 6 were partially successful. The careful distribution of the demand over holdings has aided considerably towards its acceptance by the people, who in nearly all cases have now discarded the old rough and unequal distribution by shares or by a uniform rate on all cultivation in favour of the more equitable system of soil rates on each separate class of land. The judicious soil classifications adopted in the Settlement Survey were as a rule utilized by the land-owners for this purpose, and the revenue has been distributed over 90 per cent. of the assessed area according to soils. Such differentiation is specially necessary in a hilly district where the natural variations in the quality of the soil are considerable, and where individual efforts towards improvement by embanking fields, &c., merit the widest encouragement.

25. In the irrigated circles of Kohat and in Hangu water-mills form a very valuable asset of the land-owners.

Assessment of water-mills.

They have been assessed on the same principles as the land, *i.e.* with reference to the estimated profits, but the assessment finally imposed,—Rs. 4,953—though treble the old demand—Rs. 1,641,—represents only one-fifth of the owner's profits.

26. When the new assessments were announced the supplementary cesses amounted to Rs. 21-14-0 per cent., or $3\frac{1}{2}$ annas per rupee of land revenue.

Reduction of cesses.
By the subsequent abolition of the Patwar and Famine cesses they have been lowered to Rs. 13 $\frac{1}{2}$ per cent. (local rate 8 $\frac{1}{2}$ per cent. and lambardari 5 per cent.), which means a reduction of about Rs. 23,000 in the amount which the land-owners had undertaken to pay to the State. This liberality, which benefits all revenue payers, has been much appreciated. The small *mirabi* cess of 1 per cent. levied in Lower Miranzai and the irrigated circles of Kohat has also been remitted, the irrigation establishment being now paid direct by the State.

27. Mr. Barron's proposals for the revision of lambardari inams and petty mafis which were not received till

Enhancement of Khalsa and assigned revenue.

the close of the Settlement have

not yet been disposed of, so it is not possible to give exact figures of the financial results of the operations to the State and to assignees of land revenue. A fairly accurate estimate may, however, be arrived at from the table given in his paragraph 51, from which, however, he has wrongly omitted the progressive assessment of Rs. 8,000 in Upper Miranzai.

Including this, the total final demand for land and mill revenue is Rs. 2,84,630,—against an old demand of Rs. 1,97,033,—of which Rs. 1,50,430 is recoverable by the State and Rs. 1,34,200 is assigned (including the Teri assessment *minus* the quit-rent of Rs. 20,000) or remitted. The final increase in the Khalsa demand as compared with the old assessment will be roughly Rs. 65,000 and in the assigned revenue Rs. 23,600. In the Forecast Report the Financial Commissioner anticipated a total enhancement of Rs. 73,720.

28. The total cost of the operations has been Rs. 3,14,000, of which it

Cost of Settlement.

has been decided to recover Rs. 27,100 from assignees,—including Rs. 24,000

from the Teri Khan,—so that Government will be recouped for its share of the outlay in less than six years.

29. In Chapter V is given an interesting account of the system of survey adopted in this difficult hilly country. The old maps, though fairly

System of survey adopted.
accurate for certain tracts, were very defective in others, and it was decided to re-survey the whole district—except the recently settled Khattak tract of Teri, where the existing maps were merely revised—by the square system in the plains and triangulation in the hills. There were no revenue survey maps prepared by professional agency available for purposes of check, but a special traverse of the tri-junction pillars and other fixed points carried out by the Survey Department in 1899-1900 furnished a useful means of testing the Patwaris' measurements. Mr. Barron appears to have exercised very close supervision over the

survey in all stages, with the result that the village maps have attained a very high standard of neatness and accuracy and have furnished the basis of very useful tahsil and district maps on the $1", \frac{1}{2}"$ and $\frac{1}{4}"$ scale, which show all the topographical detail necessary for administrative purposes except the hill contours.

30. While the survey was a slow and arduous process owing to the great

Correction of the old records.

area involved, the inefficiency of the district Patwaris and Kanungos, and

the difficulty in obtaining skilled subordinates from other districts the correction of the record-of-rights was carried through without any serious delay or friction. The people in Kohat are more straightforward and less given to tortuous litigation than in other frontier districts. Thus out of over 100,000 mutations decided there were only 70 appeals to the Settlement Officer, and the total number of appeals throughout the Settlement was only 82. The only serious controversy arose over the respective rights of the Khan and his fellow tribesmen in Teri, and when that was settled by a Special Regulation there was no further disturbance. To the tact and judgment displayed in their dealings with the people by Mr. Barron and his Assistant, Lala Ganga Sahai (now Rai Sahib), this happy result is largely due. Neither in Teri nor elsewhere did the Settlement give rise to any sensible increase in civil or revenue litigation. The most difficult task was perhaps the revision of the record-of-rights in irrigation. This was admirably carried out by Lala Ganga Sahai, orders being passed by Mr. Barron on all points in dispute. The records described in paragraph 57 will be of great value to the Revenue authorities in adjudicating upon irrigation disputes, the decision of which has now been entrusted to them by the provisions of the Punjab Minor Canals Act, which have lately been extended to the Province.

31. The standard village note-book forms have been slightly recast to suit local requirements, and the abstract

Village and abstract note-books and subsidiary rules and records.

village note-books, which contain in addition to the usual *résumé* of important

statistics a useful small scale map of each estate, the data for the new assessment, and Mr. Barron's notes and orders regarding the assessment and distribution, should prove most valuable for reference in matters relating to the revenue administration; e.g. suspensions and remissions of land revenue, acquisition of land, rent suits, &c. The Collector should see that they are made known to, and available for, officers who have to deal with such cases. Similar remarks apply to the revised record of tribal custom, to which are appended (1) abstracts of irrigation rights; (2) rules relating to the cutting of the dwarf palm in Miranzai and part of Teri; (3) rule governing the assessment and recovery of *tirni* and *buu* by the Khan of Teri; (4) rules for the assessment and recovery of *tirni* due to Government from immigrant Ghilzais and Wazirs. Those subjects are constantly cropping up in the district administration. They have now been carefully regulated under the orders of the Chief Commissioner, and it is believed that the future disposal of cases that arise will thereby be much facilitated.

32. The orders passed by the Chief Commissioner for the assessment and future management of the large

Settlement of Crown lands.

area of Crown lands in Kohat and Hangu

have been correctly summarised in paragraph 61 of the Report. This troublesome question has now been put on a clear footing, and where necessary the new leases have been duly executed. To round off the subject, it is only necessary here to add that since the report was written the lease of the Crown lands in Jarma has been continued from Kharif 1903 to Saiyid Secunder Shah at a rental of Rs. 2,000 for a term of 10 years, the extension of the term being conditional on his developing the estate and paying the State demand punctually.

33. Paragraphs 63 to 66 of the Report read with the Chief Commissioner's

Results of the Settlement in the Teri Tahsil.

orders on the Teri Assessment Report explain very clearly the history and present

position of affairs in the Teri Tahsil as between Government and the Chief and the Chief and the tribesmen. The Settlement now completed, though it may have

shorn the Khan of certain vague feudal privileges which were anomalous in a country under our direct administration and gave rise to continual friction between him and the people, has placed his rights on a sound legal basis and resulted in a substantial increase of about Rs. 17,000 to his income. This is now estimated at Rs. 1,10,000 per annum, against which has to be set off the quit-rent of Rs. 20,000 and the cost of Tahsil establishment Rs. 7,000, leaving him a margin of Rs. 83,000 for the cost of the body of mounted levies (100 on ordinary and 120 on extraordinary occasions) which he is required to keep up, and for the maintenance of his position as Chief of the Western Khattaks. The only matter now left which may create misunderstanding is the appointment of lambardars (paragraph 66 of the Report), and, if Mr. Barron's remarks are borne in mind, there should be no serious difficulty in practice.

34. In passing orders on the report of the Regular Settlement the Lieutenant-Governor of the Punjab Revision of lambardari arrangements. remarked that in Western Miranzai the number of lambardars was excessive, and that the average of four to a village throughout the district appeared too high. Those remarks did not include the Teri Tahsil, where the average (five per village) was even higher. Subsequent experience confirmed the view that the excessive number of lambardars hampered both the revenue and criminal administration.

The work of revision and reduction was taken up by Mr. Barron early in the Settlement, the test laid down for his guidance by the Chief Commissioner being that each important section of an estate, whether *kandi* or *tal*, should be adequately represented. It was one which required exact local knowledge and tactful handling owing to the jealous disposition of the Pathan and the desire of every section or sub-section, however small, to be separately represented. In Upper (Western) Miranzai, where the lambardari arrangements of last Settlement were provisional, Mr. Barron had a free hand, and effected considerable reductions with little friction. Elsewhere reductions were effected where possible as vacancies occurred. During the Settlement the total number of posts was reduced from 1,349 to 1,247—the average being still more than four lambardars per village, and a careful scheme was drawn up for the guidance of the Collector to show what posts should be abolished on the death of the present incumbents. This thankless and invidious, but necessary, task was carried out by Mr. Barron with the thoroughness that characterized his work throughout.

35. A strong subordinate revenue staff consisting of 7 Field and 5 Office (including the Sadr Kanungo and his Assistant) Kanungos and 90 Patwaris distributed equally in three grades of Rs. 15, Rs. 12 and Rs. 10 and 10 Assistant Patwaris has now been sanctioned for the district, and if properly supervised by the superior staff, the revenue administration of the district should in future be maintained at the high standard of efficiency to which it had been brought by the close of the Settlement. The branches of the work requiring particular attention are the crop inspections, mutations and partitions, improvements in irrigation, and a liberal and effective takavi system. The present Deputy Commissioner—Major Waterfield—has devoted much attention to the latter two objects with excellent results, and the policy should be carried on by his successors.

36. The Chief Commissioner, with the approval of the Government of India, is now pleased to confirm the new assessment for a term of 20 years, Term of Settlement and duration of the operations. beginning from Kharif 1903 in Kohat and Hangu and from Kharif 1904 in Teri.

The Settlement operations if reckoned from the date of Mr. Barron's assuming charge to the date of his departure from the district (January 1900—May 1906) lasted for over six years, the estimate being four years. All the assessments were, however, announced by November 1904, when Mr. Barron was

deputed as Secretary to the Indian Survey Committee, and he did not resume charge till 1st August 1905. During his absence the Deputy Commissioner—Major Waterfield—carried on the current duties of the Settlement, but Mr. Barron's absence undoubtedly retarded the completion of the operations. The proposals regarding revenue assignments, which should have been sent in along with or directly after the Assessment Reports, were not submitted till the close of the Settlement. The present report, though complete in manuscript before Mr. Barron left the district in May 1906, was not received in print till June 1907 : the revised edition of the Gazetteer has not yet been brought out. Had the Chief Commissioner been aware that Mr. Barron's deputation would have involved this delay, he would have hesitated to agree to it.

37. The Chief Commissioner has followed the revision of the Settlement of Kohat—a district of which he has had long personal experience—with great interest, and he is convinced that Mr. Barron's work in all branches is marked by thorough local knowledge, clear reasoning and sound judgment. He has cleared up many a tangled problem and put the revenue administration of the district, which had previously been rather haphazard and uncertain, on a sound and clear basis. The present report and the well chosen appendices to it give a lucid summary of the operations, and will be most valuable for reference to all officers who have to deal with revenue matters in Kohat.

Mr. Barron received most valuable assistance from his Assistant, Lala Ganga Sahai, up to April 1904, when he was put in charge of the Kurram Settlement. His excellent work there has been acknowledged by the Government of India, and further recognized by the grant of the title of Rai Sahib.

M. F. O'DWYER,

*Revenue and Financial Secretary to the Hon'ble the Chief
Commissioner and Agent to the Governor-General,
North-West Frontier Province.*



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Page.	Para-graph.	Line of page.	Errata.
8	...	17	<i>For "Ziri" read "Zira".</i>
8	...	36	<i>For "mine" read "mines".</i>
12	...	13	<i>For "land owner" read "land owners"</i>
16	...	Last line ...	<i>For "Tha" read "Thal".</i>
22	20	9	<i>For "1906" read "1903".</i>
22	20	9	In statement in column 3, for "Horses, mules and donkeys" read "Bullocks, cows and buffaloes," and in column 5, for "Bullocks, and donkeys" read "Horses, mules and donkeys".
28	...	3	From foot of page For "predominant" read "predominant".
33	...	34	<i>For "Settlement" read "Settlements"</i>
"	...	In Statement column 4, line, 6.	<i>For "2" read "2$\frac{1}{5}$".</i>
"	...	Do., " 9.	<i>For "3$\frac{3}{5}$" read "3$\frac{2}{5}$".</i>
"	...	Do., " 6.	<i>For "53\frac{2}{10}" read "5\frac{7}{10}".</i>
"	...	Do., " 6.	<i>For "6" read "6\frac{4}{5}".</i>
"	...	Do., " 6.	<i>For "9\frac{7}{1}" read "9\frac{7}{10}".</i>
"	...	Do., " 9.	<i>For "5$\frac{2}{3}$" read "5$\frac{2}{5}$".</i>
"	...	Do., " 6.	<i>For "5" read "5\frac{7}{10}".</i>
"	...	Do., " 12.	
36	...	3 from end of para., 31.	<i>For "et" read "let".</i>
38	...	32	<i>For "that" read "than".</i>
41	...	10	<i>After "case" insert "in".</i>
"	...	24	<i>After "which" insert "the".</i>
45	...	4	<i>For "fo" read "of".</i>
46	...	In Statement column 6, line, 8.	<i>For "41,51" read "41,571".</i>
49	...	9	<i>For "Rs. 8-1-4" read "Rs. 18-1-4".</i>
64	...	5	<i>For "manners" read "manner".</i>
70	...	36	<i>After "or" insert "is".</i>
75	...	11	<i>For "too hard" read "to hand".</i>
79	...	32	<i>After "had" insert "been".</i>

SETTLEMENT REPORT OF THE KOHAT DISTRICT.

CHAPTER I.—THE DISTRICT.

1. The Kohát District is the central of the five districts which are now included in the North-West Frontier Province of India. It lies on the right or western bank of the River Indus, and comprises the greater portion of the rough hilly country between the valleys of Pesháwar on the north and Bannu on the south. It is situated between $32^{\circ} 45'$ and $33^{\circ} 45'$ north latitude, and between $70^{\circ} 30'$ and 72° east longitude.

On the east the River Indus forms the boundary with the Attock District of the Punjáb. To the south lie the Mianwali District of the Punjáb and the Bannu District of the North-West Frontier Province. The boundary with Mianwali runs for the most part along the crest of a rugged range of hills between 4,000 and 5,000 feet in height. The Bannu boundary is marked by a series of pillars across the open Marwat plain. On the west the district adjoins the country of the Wazirs, the Kurram River marking for a short distance its extreme westward limits. To the north-west lies the country of the Zaimusht and Orakzai tribes. The Samána Range, reaching a height of 6,800 feet, here forms the boundary between the district and the Orakzai clans inhabiting the Khánki Valley. Further east the hills north of the town of Kohát divide British territory from the country of the Sipaiah and Bizoti Orakzais and the Adam Khel and Jowaki Afridis, while on the Indus the Niláb Ghásha Range (4,740 feet high) separates the Kohát and Pesháwar Districts. Wherever practicable the watershed, according to the custom of the country, marks an easily defined boundary line.

The district is therefore essentially a frontier one, lying between the Indus and Kurram Rivers, with the Province of the Punjáb on the east and the semi-independent Afridi, Orakzai and Wazir tribes on the north and west.

The boundaries, though now properly demarcated for the first time along their entire length, have remained practically unaltered since annexation. Since the previous settlement, however, the Khwarra-Niláb Valley on the Indus, north of the Niláb Ghásha, has been retransferred to the Pesháwar District, to which it had belonged prior to 1854; the change took place in 1896. The effective occupation of the Samána Range in 1891 has enabled us to carry the settlement measurements up to the actual boundary in this direction; at the previous settlement they stopped short in the valley at the foot of the hills.

The area of the district as now ascertained is 2,695 square miles, of which 460 square miles are cultivated.

At the census taken in March 1901 the population was returned as 217,865 persons.

2. The interior of the district consists of a series of narrow valleys separated by rugged hills. Most of these hills are from 3,000 to 4,000 feet high rising to peaks nearly 5,000 feet in height. The main ranges are the Miranzai or Mir Khweli, separating the Miranzai Valley from the Khattak country; the Mirandai on the south of the Teri Valley; the Gargalot south of Gumbat; the Babádur Khel-Krár and the Málgin salt hills, and the Lawaghar hills on the southern edge of the district, the last named consisting of two ranges, the Shinghar and the Surghar, of which the latter is the boundary with Mianwali.

Between these ranges lie the cultivated valleys varying in width from a few hundred yards to 6 or 7 miles. The broadest of these are the Jarma-Kharmátu and Láchi plains, the open portion of the Miranzai Valley and the Chauntra plateau sloping westwards from the Bhangi Khel hills.

Towards the Indus the country is a mere net work of barren hills and deep ravines culminating in the east of Shakardarra in a desolate wilderness difficult to describe adequately.

The Thal tract on the Bannu border is quite different from the rest of the district. It is a level expanse of sandy soil and forms really part of the Marwat plain drained by the Kurram River.

The southern or sunny sides of these rocky hills are almost destitute of vegetation. On the northern or shady slopes, however, there is often a good growth of scrub jungle consisting chiefly of wild olive (*olea Europaea*), *gurgura* (*reptonia buxifolia*) and *sanatha* (*dodonaea viscosa*). In the more sheltered valleys in the north of the district the wild olive thrives well, and where there is water groves of *shisham*, *palosa* (*acacia modesta*) and mulberry are to be found. In the south of the district trees are more rare, being confined to places provided with springs. The salt hills are naturally quite bare.

The only stream worthy of the name is the Kohát Toi which brings the drainage of the Khánki Valley and Lower Miranzai past Kohát. Above Kohát the water is extensively used for irrigation, but unfortunately at this point the stream runs dry except in times of flood after rain in the Orakzai hills. The water apparently sinks into the bed and wells up again at Dhoda below which a few villages are irrigated, but lower down the stream runs in a narrow channel between high cliffs until it reaches the Indus. The drainage of Upper Miranzai runs into the Kurram at Thal, there being generally a little water in the Shkalai stream as it is called. The central portion of the district drains into the Indus chiefly through the Teri Toi in which the water, once it enters the salt region, is so brackish as to be useless for agriculture. The drainage of the south-western tract is towards the Kurram. But nearly all these streams, as well as the ravines which feed them, are dry except immediately after rain when the hill torrents carry down an immense quantity of water. Every effort is made by the people to hold up this water and distribute it over their fields, but it is only in favourably situated localities, such as the Thal tract and to a less extent Miranzai, that far too large a proportion of the water does not find its way uselessly into the Indus.

3. Rain-gauges are now maintained at five places in the district,—the head-quarters of the three tahsils, Kohát, Hangu and Báná Dáud Shah, and also at Fort Lockhart and Thal. Returns have been kept at Kohát since 1856, but the records do not go back further than 1888 for the other places. The average rainfall in inches has been—

PERIOD.	Kohát, 1856—1904.	Hangu, 1889—1904.	Báná Dáud Shah, 1889—1904.	Thal, 1889—1904.	Fort Lock- hart, 1898—1904.
Summer months (April—September) ...	12.34	19.30	15.96	11.64	21.04
Winter months (October—March) ...	5.71	6.98	5.07	4.67	10.51
Whole year ...	18.05	26.29	21.03	16.31	31.55

The average annual rainfall at head-quarters is 18 inches, and for the district generally a rough average of 20 inches may be taken. It will be seen later on that of the total cultivation 88 per cent. and of the crops actually harvested 82 per cent. are unirrigated. The importance to the agriculture of the district of obtaining seasonable rain can therefore hardly be exaggerated. Kohát is too far north to be within reach of the regular monsoon. Most of the rain comes from the direction of the Tiráh hills, though monsoon storms certainly affect the local rainfall. A rainfall dependent mainly on hill storms is necessarily extremely capricious in its effects. No portion of the year is certain of obtaining its normal rainfall. A great deal depends too on the direction given to the storms by the hills they happen to strike. One valley may get an excellent shower of rain while the next does not receive a drop. This may be exemplified by a recent instance. In August 1905 while Hangu received 4.81 inches of rain and Teri (Báná Dáud Shah) 8.33 inches, the total fall for the month at Kohát was only 3 of an inch!

The distribution of the rain is of much more importance to agriculture than its total amount. In a favourable year showers in April and May and

good rain in July and the early part of August followed by an inch or so in September and the beginning of October will ensure a good *kharif* harvest. An October rainfall permits of the full area being ploughed for wheat and sown. Showers in November and December assist the wheat and gram and enable further sowings to be made. Rain in the first half of January makes the wheat crop secure, and its outturn in grain and straw is improved by a fair amount of rain in February and March. The Kohát zamindar is not behind his brother farmers elsewhere in grumbling whether he gets too much rain or too little, but harvests above the average can be obtained in a year thus sketched, though the total rainfall is well below the normal.

4. Few districts, even in the north-west of India, experience such extreme variations in heat and cold as Kohát. The months of January

and February are generally very cold; heavy falls of snow take place on the Samána; the Mir Khewli Range and the hills just north of Kohát are usually covered with a white cap for short periods. Snow has fallen in Hangu (2,815 feet above sea-level), and a few flakes have been known in Kohát itself (1,700 feet above sea-level). A bitter cold wind, which can be very raw indeed after rain, blows down the valleys. Camp life in these two months is often far from pleasant. The climate in March and April is excellent. The hot weather commences in May. June, July and August are very hot, and should the heat not be broken by occasional storms bringing rain from the hills it becomes extremely oppressive. Unfortunately no official record of the temperature is kept. September is often hot, but the nights begin to get gradually cooler. In October *punkhas* are not required, and the weather for the rest of the year is dry and pleasant.

The fierce heat of the three summer months is thus atoned for by the bracing nature of the winter and early spring, and the climate is on the whole a good one.

5. The population of the district is almost entirely Muhammadan by religion, the vast majority professing the Suni doctrine. In Sámilzai there

is a strong little colony of Shiahls, and the adjoining Orakzai clans are also of the same faith, but the rest of the district is occupied by Sunis. The surrounding tribes, the Afridis, Wazirs, Zaimushs and most of the Orakzais are Sunis.

At the last census out of 217,865 persons only 18,411 were found to be Hindus and Sikhs. A large proportion of these were men belonging to the regiments of the Native Army quartered in the district at the time. The remainder compose the trading classes in the Kohát town and the small shopkeepers of the villages. A few Hindus have acquired land, but the area is insignificant.

More than three-fifths of the inhabitants are Patháns who form the land-owning class as a whole. The only other tribes owning an appreciable quantity of land are the Awáns (one-tenth of the population), who are settled in a few villages near Kohát and are probably immigrants from Rawalpindi, and a certain number of Sayads.

Among the Patháns the Khattaks, comprising considerably more than half the Pathán population, are the most important tribe. They own nearly two-thirds of the district. The other main tribe is that of the Bangashes who, with their allies, the Niázis, own practically the rest of the district. A few Orakzais, Afridis and Zaimushs own or cultivate a little land, but the majority of the people shown in the census returns as belonging to these tribes, as well as all the Ghilzais and Wazirs, were merely temporary residents, spending the cold weather in the district with their camels and flocks of sheep and goats, or engaged either in the salt trade from the Teri mines, or simply as daily labourers.

Nothing is known of the history of the country before the arrival and settling down of the Khattaks and Bangashes. There are however traces of a former Buddhist occupation of Kohát itself. Both tribes are said to have come here during the fifteenth century, and the tradition is that they drove the Orak-

zais back into the hills. The Khattaks came from the south-west or Banu direction while the Bangashes entered the district from the Kurram Valley. The Khattaks occupied the whole of the south of the district and the land on the Indus, the Bangashes and Niúzis settling along the course of the Kohát Toi.

The Bangashes consist of two main sections, the Gár and the Sámil. The latter occupy the Sámilzai *tappa*; the former, sub-divided further into Baizais and Miranzaïs, hold the *tappas* bearing their respective names.

The main sections of the Khattaks are the Báraks who are sub-divided into the Manzaïs, Mandáns, Máshi Khel Uzds, and the Lands; the Ságris; and the Akora Khattaks most of whom are now in the Peshawar District. The Seni and Khwarram sections are said to have originally been outsiders.

Maps showing the distribution of the various sections of these tribes by villages will be found appended to the assessment reports.

The language of the district is Pashtu. The Bangashes speak the hard *pákkhту* of Peshawar and Kábul. The Khattaks and Niázis talk a rough dialect of the softer Kandahári *pashtu*.

6. For revenue purposes the district is divided into three sub-divisions—
Revenue sub-divisions.

the Kohát, Hangu and Teri Tahsils, each under the charge of a Tahsildar,

with a Naib Tahsildar and the usual staff subordinate to him.

The arrangement of the tahsils is far from being the most suitable that could be devised for facilitating the working of the revenue or almost any other branch of the administration. But the area contained in the Teri Tahsil must be kept as a separate entity, as will be explained further on. As long as that is the case no better arrangement of tahsils than the present can be introduced.

The Kohát Tahsil occupies the north-eastern part of the district. It comprises the old local sub-divisions known as the Sámilzai, Baizai, Zira,

Pattiála and Shakardarra *tappas*. It is divided into three separate portions by an intervening tract belonging to the Teri Tahsil, which stretches down to the Indus on the east and up to the Jowaki hills on the north, thus cutting off the Shakardarra *tappa*, and the Zira and Pattiála *tappas* (now known as the Kohi Circle) from the main portion of the Kohát Tahsil and from each other. This is inconvenient but cannot be helped.

The Sámilzai *tappa* in the north-west of the tahsil is occupied by the Sámilzai Bangashes. The Baizai Bangashes, though the dominant tribe in the *tappa* named after them, are not in exclusive possession of many villages. Their numbers appear always to have been small, and fratricidal feuds between different branches of the clan were so fierce that some sections had entirely disappeared before annexation. The Baizais now hold a few villages round Kohát from Garhi Muáz Khan to Kharmátu. The southern portion of Baizai all along the Teri border is occupied by Niázis, while the Awáns are owners of several villages. The residents of Shakardarra are Ságri Khattaks. Zira and Pattiála are held by branches of the Akora Khattaks.

Government is a large landowner in the tahsil, owning one-thirteenth of the total and nearly one-tenth of the cultivated area.

The cultivation presents great variety. In the north-west we have the very highly cultivated and abundantly irrigated lands along the bed of the Kohát Toi. East of Kohát as the water channels from the Toi get longer the irrigation is more uncertain and is jealously distributed to the fields it can reach. In the south of Baizai there are large stretches of unirrigated land with a more or less sandy soil. Shakardarra enjoys no irrigation, but on the main plateau the soil though light is good, retains moisture well, and in years of ordinary rainfall yields excellent crops. Towards the Indus the land is very broken and like the bare fissured country of the Zira and Pattiála *tappas* only repays cultivation in small level patches.

The area of the tahsil is 479,942 acres, of which 68,491 acres are cultivated. The irrigated area is 25,195 acres, nearly all fed from streams and springs. The area irrigated from wells is infinitesimal, being only 285 acres.

The population is 78,747, of whom it is estimated that 54,550 depend on agriculture, giving a pressure per square mile of 73 persons on the total area, and 510 persons on the cultivated area.

The tahsil is divided into 89 estates or villages.

7. The Hangu Tahsil consists practically of the Miranzai Valley situated in the north-west of the district.

The Hangu Tahsil.

The valley is nearly 45 miles long.

It is bounded on the north by the Samána Range and on the south by an almost continuous range of hills stretching from Mir Khweli to Thal. To the south of this range there are a few hamlets, inhabited by Khattaks and others, but attached to parent villages in the main valley.

During the present settlement operations the two villages of Sumári Bala and Sumári Páyán occupied by Niázis, and the small Awán village of Jabbi have been transferred to the Kohát Tahsil. Hangu has been more than compensated by the demarcation of seven new villages on the southern slopes of the Samána, the creation of two new villages at the foot of the same range, and the formal inclusion as a separate estate of the plateau known as Chapri Wazirán south of Thal. Even so, from a revenue point of view, the Hangu Tahsil is an extremely light charge as it contains only 43 estates.

The eastern half of the tahsil drains into the Kohát Toi and the western half into the Kurram. The watershed between the two runs through the village of Káhi.

Hangu is the head-quarters of the Assistant Commissioner in charge of the Thal Subdivision. This officer is the Deputy Commissioner's assistant in exercising political control over the neighbouring tribes, the Kábul Khel Wazirs and the Gár sections of the Orakzais. Since 1891 a regiment of Native Infantry has been quartered at Fort Lockhart on the Samána, with a detachment holding the fort at Thal. The forts of Gulistán, Dhár and Sangar are held by a recently raised local corps, the Samána Rifles. For the further protection of the border there are several Border Military Police posts, and also some towers held by villagers or by the border clans under their agreements with the British Government. It is difficult to realise the great change that has been effected in the peace and security of the valley since last settlement, and more especially since the occupation of the Samána and the Kurram Valley.

The inhabitants are Miranzai Bangashes who own or cultivate nearly all the villages. West of Hangu there are three villages occupied by Niázis; the Zaimushts own the village of Torwari; the villages on the Samána belong to Rabia Khel, Akhel and Ali Khel Orakzais.

Government owns one-ninth of the total area and one-tenth of the cultivated area, chiefly in the village of Hangu and its hamlets.

The soil is mainly a good fertile loam. Most of the cultivation is un-irrigated assisted by embankments and tanks. Wherever water is available from springs and streams it is of course utilised, and small wells are being sunk in Upper Miranzai. The rainfall being 26 inches in the year and generally well distributed, the unirrigated crops are as a rule good. The greatest danger to cultivation comes not from drought but from the violent hail-storms which sweep across the valley from the Samána, especially during the summer months.

The area of the tahsil is 267,745 acres, of which 33,601 acres are cultivated. The irrigated area is 9,231 acres; of this wells cover only 355 acres.

The total population at the last census was 43,106, and it is estimated that the agricultural population is 39,700. The latter figure gives a pressure of 95 persons on a square mile of total area, and of 763 persons on each cultivated square mile.

8. The Teri Tahsil comprises the whole of the southern portion of the district, excluding Shakardarra. It con-

The Teri Tahsil.

tains a little more than half the total

area of the district, and nearly two-thirds of the cultivated area. Less than 2 per cent. of the cultivation is irrigated; part of the irrigation is derived from a number of wells in the Chauntra valley, but most of the irrigated land consists of small patches of land lying near springs and on the banks of streams. There is nothing to correspond to the rich irrigated cultivation of the country between Kohát and Hangu. Much of the unirrigated land is however more open than in the two other tahsils and a good deal more care is devoted to its cultivation, so that on the whole the wheat and bajra crops in Teri are the best in the district.

The agricultural population is entirely composed of Khattaks. Their old *tappas* or sub-divisions of territory were Bárak, Darra, Seni and Khwarram. The two last are occupied by Senis and Khwarrams; the inhabitants of the Darra *tappa* are chiefly Báraks for whom there was no room in the southern half of the tahsil.

The boundaries of the tahsil have remained unaltered since the previous settlements. The number of villages or estates is 166.

The Khán of Teri is the Chief of the Teri Khattaks. During Moghal and Afghan times the Khattak Chiefs were practically independent and held unlimited sway over their clansmen, tempered by the frequently exercised power of the latter to remove an unpopular chieftain. The Kháns are descended from a powerful Malik named Ako or Akorai who lived in the latter half of the sixteenth century. His descendants are known as the Akor Khel. Since the end of the eighteenth century the Khanship has been held by the family of Sardár Shahbáz Khán II. At annexation his great-grandson Khwája Mahomed Khán was Khán of Teri, and was given a lease of the land held by his fellow tribesmen. For the valuable services rendered by him in the Mutiny the lease was confirmed to him and his heirs in perpetuity on condition of continued loyal service and subject to the annual payment of a tribute or quit-rent of Rs. 20,000. Later on in 1873 Khwája Mahomed Khán was made a K. C. S. I. and given the personal title of Nawáb. One of his sons Khán Bahádur Abdul Ghafur Khán is now Khán of Teri.

The land revenue in Teri is assessed and collected on exactly the same principles and methods as the land revenue in Kohát and Hangu, but is all paid into the treasury of the Khán. The Khattak revenue-payers are full proprietors of their lands and in the same position as landowners in ordinary *khálsa* tahsils. But in order to recognise the position of the Khán as their Chief and to some extent their over-lord, a portion of the land revenue ($1\frac{1}{2}$ annas in the rupee) is set aside as *taluqdári*, and has been declared an imitable property descending integrally along with the Khanship to the Khán for the time being.

The former Kháns used after the manner of Native Chiefs to collect a number of small miscellaneous dues. These were all abolished during the previous settlement proceedings, with the exception of *tirni* and *buha*. *Tirni* is a grazing fee paid on camels, sheep and goats, and is thus a tax on the waste or grazing land which covers such a large area in the tahsil. *Buha* is a house-tax paid entirely by non-agriculturists. The recovery of these dues is now regulated by the Teri Dues Regulation No. IV of 1902. The Khán is also allowed to levy a small axe-tax (*kulhári*) or wood-cutters in the south-east of the tahsil.

Government possesses a most valuable property in the tahsil in the shape of the Teri salt mines. The hills in the centre of the tahsil contain enormous beds of rock salt of a bluish grey colour. The mines or rather quarries now at work are situated in the villages of Málgin, Jatta Ismail Khel, Bahádur Khel and Kark. The neighbouring villagers receive a considerable income from excavating the salt and from allowances. The income to Government from the salt duty is now over six lakhs a year. The Khán of Teri receives an allowance of Rs. 10,000 a year from this income.

Outside the salt area Government is not a landowner in this tahsil. Its place is naturally taken by the Khán. By certain judicial decisions passed recently an area of about 26,932 acres, consisting of eleven hamlets and lands in seventeen villages, has been declared to form a property attaching to the Khanship and descending with it to the Khán for the time being. Besides this the family of Nawáb Sir Khwája Mahomed Khán of course owns a considerable area of valuable land in ordinary proprietary right. The only land belonging to Government is that occupied by encamping grounds, the railway, bungalows, police stations, &c.

The area of the tahsil is 977,398 acres, of which 192,470 acres are cultivated. The irrigated area is only 2,017 acres, the portion watered from wells being 661 acres.

The last census gave the population as 96,012 practically all dependent on agriculture and its connected trades. There are therefore 63 persons per square mile of total area, and 319 persons per square mile of cultivation.

CHAPTER II.—PREVIOUS ASSESSMENTS.

9. The Emperor Akbar annexed Kohát to his dominions in 1587. For the next 150 years the district formed part of the Moghal Empire. After Assessment under native rule.

the sack of Delhi in 1739 by Nádir Shah, to whom the whole of the Trans-Indus tract was surrendered, Kohát was included in the Afghan Kingdom ruled by the successive dynasties of the Duránis, Abdállis and Bárakzais. It was not till 1832 that Ranjit Singh succeeded in reducing the Peshawar Sardárs to the status of tributaries. In 1834 the first Sikh Governor, Autar Singh, Sindánwala, was sent to Kohát. He introduced the idea of an established government to the Khattaks by locating a Sikh *Thána* at Teri; this small garrison was however massacred by the Khattak Chief, Rasul Khán, two years later. The Sikhs practically abandoned Kohát in 1836 when Ranjit Singh gave the district, along with Peshawar, to Sardár Sultán Mahomed Khán, Bárakzai in service jagir. This Sardar remained the virtual ruler of Kohát until the second Sikh War and the annexation of the Punjab in 1849.

During the period of Moghal and Afghan rule the revenue arrangements took the form of leases in favour of the local Kháns. Few records remain to show what even the nominal revenue was supposed to be. The Teri Kháns apparently sought confirmation in the chiefship from the Emperor at Delbi, and later on from the Duráni rulers of Kábúl, but no regular tribute seems to have been levied. Their tenure was a purely feudal one, the Khattak *lashkar* or fighting force being available for service when called upon. The Chief of the Ságris in Shakardarra paid an annual tribute to the Duráni Kings of 80 fat-tailed sheep, and had to furnish 80 horse-men when required.

When Ranjit Singh made Sultán Mahomed Khán *jágirdar* of the district, its revenues were estimated at one and a half lakhs of rupees. The Sardár was the first to demand tribute as the price of his interference between rival claimants to the chiefship of the Khattaks. From 1836 to 1843 he leased out the Teri country to the Khán, Rasúl Khán, for an annual payment of Rs. 40,000, ten horses and twenty cawels. The Bárakzai governors recovered part of their revenue in Baizai and Sámilzai direct, but leased out Miranzai and the greater part of Baizai to farmers. In 1848 Sultán Mahomed Khán's recoveries were approximately Rs. 76,700 from Baizai and Sámilzai, and Rs. 18,000 from Lower Miranzai, which, with the Rs. 40,000 from the Khattak Khán, gives a total revenue of Rs. 1,34,700. Upper Miranzai was practically independent of the Bárakzais.

From the actual cultivators the Kháns and farmers, who acted as middlemen, recovered revenue in kind, probably at much the same rates as prevail at the present day in the shape of rent, *viz.*, one-third or one-half on irrigated lands, and one-fifth or one-fourth on unirrigated. In certain tracts this payment of revenue in kind was commuted to cash payments levied on houses. In Chauntra for instance the Khattak Khán collected Rs. 5 per harvest on each *lugah* or hearth; in Shakardarra the Khán recovered Rs. 4 per harvest on each house. Numerous petty cesses and vexatious dues were levied on all who could pay, the only limit to extortion being the fear that the people might be driven to desert their lands, or to murder the lessee.

10. For the first two years after annexation Kohát was included in the Peshawar District. It was administered by Lieutenant (afterwards Sir R.) Pollock as Assistant Commissioner under the Deputy Commissioner of Peshawar. In May 1851 Kohát was formed into a separate district with Captain (afterwards General Sir John) Coke as its first Deputy Commissioner.

Lieutenant Pollock made two rough annual settlements of the Kohát and Hangu Tahsils for the two years during which he was in charge. His arrangements do not appear to have been reported for orders. He seems to have followed as far as possible the system of leases or farms which he found in force. His first summary settlement of 1849-50 amounted to Rs. 1,05,350, but in the following year he reduced the assessment to Rs. 1,01,225. This included Miranzai, Sámilzai, Baizai and Shakardarra, but not the Khaták *tappas* Zira and Pattiála.

In 1851-52 Captain Coke made a more elaborate, but still very summary, settlement of Baizai, Samilzai and Miranzai, which was sanctioned by the Chief Commissioner of the Punjab for a period of three years. The main feature of this settlement was the grant of a great majority of the villages on lease to the more important lambardars or *maliks*, as well as to non-resident lessees. The *maliks* and lessees realised in kind from the villagers at one half on irrigated, and one-fourth on unirrigated lands, and paid the revenue in cash. In a few villages the settlement was made with the proprietary body in the shape of a cash assessment on the *hakhras* or shares in which the villages were held. The result of these proceedings was to reduce the revenue in these three *tappas* from Rs. 94,000 to Rs. 90,600.

In 1854-55 Captain Coke in his second summary settlement reduced this demand still further, and put the assessment at Rs. 72,800 only. At this settlement a great increase took place in the number of agreements made with the villagers direct without the intervention of lessees. The assessment of Shakardarra and Upper Miranzai remained unchanged at Lieutenant Pollock's figures. But owing to the incapacity of Afzal Khan, the *jágirdar* of the Ziri and Pattiála *tappas*, the direct management of this tract was assumed for the first time, and a revenue of Rs. 1,667 was imposed. The area on which Lieutenant Pollock had in 1849-50 put an assessment of Rs. 1,05,350 was in 1854-55 called upon to pay only Rs. 80,050, a reduction of 24 per cent.

This light assessment was sanctioned for five years, but was found generally to work so well that it was confirmed for a further period of three years, and again in 1868 a further extension of three years till the end of 1865-66 "and thereafter until revision be effected" was ordered. In the end its currency ran to 1877-78 when the first regular settlement took its place. During this period the Deputy Commissioners from time to time revised the assessments of individual villages, and where considerable increases in cultivation had occurred the revenue was slightly raised. The fourth summary settlement, which thus remained in force for 24 years, was undoubtedly a lenient one, but moderation was more than justified by the backward and turbulent state of the country.

In the Teri Tahsil annexation was followed by as little interference as possible in the internal affairs of the Khattaks. Small military posts were established on the Bannu Road for its protection, and a police *thana* was placed at Teri. A duty was imposed on the salt excavated from the mine. But the revenue administration remained entirely in the hands of the Khán, Khwája Mahomed Khán. No summary settlements were undertaken. Lieutenant Pollock, however, in 1850 made a rough enquiry into the amount of revenue the villages were paying to the Khán; this consisted simply of a record of the Khan's receipts for that year. But, as rough agreements were taken in 1850 for the Bárak tract and in 1851 for the rest of the tahsil, stating for cash paying villages the amount of revenue payable to the Khán, and for others the share of the produce to which he was entitled, the proceedings may be regarded as a sort of summary settlement. No formal authority attached to Lieutenant Pollock's note, but they and the agreements must for all practical purposes have been regarded by all parties in this wild country as fixing the revenue demand. As a result of his enquiries Lieutenant Pollock estimated the Khán's revenue at Rs 50,000.

The total land revenue of the district fifty years ago is shown approximately in the following table:—

Summary settlement of		1849-50.	1850-51.	1851-52.	1854-55.
Kohat Tahsil	...	Rs. 80,013	Rs. 76,295	Rs. 74,635	Rs. 60,866
Hangu	"	25,339	24,931	23,000	21,348
Teri	"	50,000	50,000	50,000	50,000
	Total	1,66,852	1,51,226	1,47,444	1,31,714

The dealings of the British Government with the Khán of Teri may be briefly noted. At annexation the lease of the tahsil was given to him for Rs. 31,000, as he had taken the side of the British in the second Sikh War. In 1850 certain obnoxious taxes included in the lease were abolished by order of Government, and the tribute was lowered to Rs. 25,000. In 1851 Khan Khwája Mahomed Khán was given a lease for five years at Rs. 20,000 per annum. In 1855 the lease was granted to him at this rate for life, and in 1858 for his services in the Mutiny the grant was, as already noted in paragraph 8, confirmed to him and his heirs at this rate in perpetuity.

In 1855 the amount recovered by Government in land revenue from the Kohát District may therefore be said to have been just about one lakh of rupees per annum.

11. Kohát was the last of the districts of the Punjáb, except Simla, to be brought under a regular settlement.

The regular settlements.

It was not until the end of 1874 that the Government of India in their letter No. 307 R. (Foreign Department), dated 30th December, issued orders for the first regular settlement of the Kohát Tahsil and of Lower Miranzai in the Hangu Tahsil. Upper Miranzai remained under summary settlement, it being considered unwise to attempt field measurements in such wild country. The Teri Tahsil was entirely outside the scope of the settlement.

Measurements began in the cold weather of 1874-75. In July 1875 Captain E. G. Hastings, Settlement Officer of Peshawar, was appointed

The Kohát and Hangu Tahsils. to the charge of the Kohát Settlement in addition to his own duties. His assessment report was submitted in December 1877. The new assessment in the regularly settled portion of the district was introduced from kharif 1878. The report on the summary settlement of Upper Miranzai and the introduction of the new revenue there followed in 1879. In September of that year Major Hastings was appointed Political Officer to the Kábul Field Force and relieved of the settlement charge. The work of winding up the settlement continued until September 1882 under Major T. J. C. Plowden and Mr. H. St. G. Tucker, Deputy Commissioners. The latter officer wrote the Final Settlement Report. There had been considerable delay in deciding the knotty questions connected with the ownership of the village of Hangu and its adjoining hamlets owing to the claims raised by the Hangu Khans. The Punjab Government in their Resolution No. 179, dated 13th March 1886, finally sanctioned the settlement for a period of twenty years with effect from kharif 1881.

In the meantime the arrangements of the Khán of Teri for the collection of his revenue had broken down. In

The Teri Tahsil.

the hot weather of 1880 the Bárak

Khattaks, occupying the southern portion of the tahsil, broke out into open revolt against his authority. They had realised the advantages conferred by a lenient fixed assessment on the Bangashés, and on their neighbours on the other side, the Bannuchis and Marwats in the Bannu District, where a regular settlement had been brought into force from the autumn of 1877. The reason they alleged for their rebellion was the oppressive nature of their Chief's revenue administration. The disaffection of the Báraks was brought to a head by the demands made on them for service during the Afghán War owing to the "great" and perhaps indiscreet zeal of the Nawáb in the service of Government during "a time of serious crisis." The state of feeling remained so unsatisfactory that it was decided with the consent of both parties to carry out a summary settlement of the Bárak tract in order to define more completely the respective rights and liabilities of the Nawáb and his tribesmen. Notification No. 540₂, dated 4th October 1883, issued by the Punjab Government, placed the Deputy Commissioner, Mr. H. St. G. Tucker, in charge of the operations. His new assessments were introduced from kharif 1886, the proceedings coming to a close with the Punjab Government letter No. 348, dated 15th July 1890, sanctioning the settlement for a period of fifteen years until rabi 1901 when the settlement of the Kohát and Hangu Tahsils expired.

The inevitable result of this successful issue of the Bárak revolt was a demand from the rest of the Khattaks for a similar settlement, a demand which received considerable impetus from the death in 1889 of the powerful old Chief Nawáb Sir Khwája Mahomed Khán. His successor Mahomed Zaffar Khán, instead of attempting to ease off the situation by leniency, aggravated matters by trying to realise in kind revenue which his father had collected by means of cash leases. The consequence was that the Khattaks refused to pay any revenue at all, and their demand for a settlement could not under the circumstances be resisted. To this the Khán, unable as he was to collect his dues in any form, gave a reluctant consent. The commencement of operations was sanctioned by the Punjab Government in August 1890, the settlement being, like the Bárak one, carried out by the Deputy Commissioner in addition to his other duties. The new assessments were introduced from kharif 1893, and were confirmed by Punjab Government letter No. 603, dated 6th June 1898, for a term of eight years ending with rabi 1901, in order that the whole district might come under re-settlement at one and the same time.

The settlement operations now being reported upon constitute therefore the first attempt to deal with the district as a whole. In Bar Miranzai (and in the Khwarra *tappas* now forming part of the Peshawar District) the present is the first regular settlement with fully prepared maps and records of rights. In Bárak also this is nominally the first regular settlement, though Mr. Tucker's Settlement of 1883-86 was summary only in name, the records, maps and procedure being as complete as in a regular settlement of the ordinary type. In the Kohát Tahsil, in Kuz Miranzai and in the northern part of Teri the first revision of the regular settlement has now been carried out.

This extraordinary variety in the conditions and circumstances under which the previous assessments were effected, has not tended to simplify the work of revision, nor have otherwise avoidable complications been reduced by the wide divergencies in the terms for which the expired assessments have run or by the number of hands through which the discussion of their details passed. It will have been seen that settlement operations of one kind or another were in progress more or less continuously in the district from 1874 to 1898. The burden of this has however only fallen on the head-quarters establishment, for taking the different parts of the district the people have been singularly free from the harassment attendant on settlements. The Kohát and Hangu Tahsils have enjoyed unusually long terms of assessment, extending in the case of the lenient fourth summary settlement from 1854-55 to 1877-78, and in the case of the regular settlement from 1878-79 to 1902-03, periods of 24 and 25 years. In the Bárak *tappa* of Teri the expired settlement has run for 18 years from 1886-87 to 1903-04, and even the more recently settled Khattak *tappas* have had a fixed assessment for 11 years.

The methods adopted in the previous assessments though they varied in details were the same in principle. In each the assessment took the shape of a cash demand fixed for the term of the settlement, and limited in accordance with the Assessment Instructions of 1873 (Appendix I. B. of the Settlement Manual,) to one half of the estimated net assets of each estate. The different calculations by which the Settlement Officers arrived at their results have been explained in the assessment reports, and I need not repeat the explanations here. Except in the unmeasured Bar Miranzai Circle, the basis of the estimates was a careful measurement of the cultivated area, an appraisement of the crops grown on that area founded on crop experiments, and a calculation of the net assets of the landlords from the produce rents usually paid by tenants-at-will. The total fair revenue of each assessment circle having been thus ascertained and sanctioned, its distribution between the estates was carried out by the Settlement Officers according to their knowledge of the circumstances of each village. A slight departure from the system of assessments fixed for the whole term of settlement took place in the Thal Circle of the Teri Tahsil, where, in order to mitigate the increase over the previous assessment, a progressive enhancement of $12\frac{1}{2}$ per cent, after the lapse of five years, i. e., from kharif 1891, was sanctioned.

The results of these settlements are shown in the following table:—

Tahsils,	Revenue demand prior to settlement.	Half net assets estimate of Settlement.	Assessment sanctioned by Government.	Assessment imposed in distribution over estates.	Total assessment including area held revenue free.
Kohát	Rs. 63,113	Rs. 78,330	Rs. 77,945	Rs. 71,841	Rs. 77,335
Hangu	21,537	38,217	28,523	27,920	34,092
Teri ... { Bárak ...	*32,000	48,905	41,551	41,527	
Teri ... { Khattak ...	*40,000	51,570	42,300	45,306	
Teri ... { Tahsil ...	72,000	1,90,475	83,851	86,883	86,833
Total District ...	1,56,650	2,17,022	1,90,319	1,86,594	1,95,360

When the Kohát-Hangu Settlement took place it was the custom to exclude areas held revenue free from the calculation of the half net assets estimate. Such areas were afterwards nominally assessed for the calculation of cesses at the rates obtaining on the *khalsa* land in each village. In the two settlements in the Teri Tahsil the half net assets estimates embraced the whole of the cultivated area. For the district as a whole the sanctioned assessments amounted to 88 per cent., and the assessments actually imposed by the Settlement Officers to 86 per cent. of the half net assets estimates then framed.

ough the land revenue of the district apparently increased by Rs. 38,600 the undertaking of these settlements was by no means a profitable enterprise for Government. So large were the concessions granted to the villagers and leading men in frontier remissions (see paragraph 38 *infra*) and jagirs, muafis and inams (see paragraphs 48 to 50 *infra*) that in the Kohát and

* Paragraph 14, Kohát-Hangu Assessment Report.

Hangu Tahsils the amount payable to the treasury was only Rs. 69,526,* representing actually a decrease of almost Rs. 5,200 as compared with the previous realizations. The tribute of the Khán in Teri being fixed, no increase in revenue was of course expected in that tahsil. But in 1881 in consideration of his services in the Afghan War the amount payable by the Nawáb had been reduced to Rs. 18,000 for his lifetime. This reduction lapsed with his death, but was regranted to the present Khán in 1895 because of the pecuniary loss he was supposed to have suffered in connection with the Khattak Settlement. The reduction has lapsed with the settlement. *नयन*

After the completion of the settlements Government therefore only recovered Rs. 87,500 in land revenue from the district. Sir Charles Aitchison, when sanctioning the Kohát-Hangu Settlement in 1886, said that the object of the settlement was not so much to increase the Government rent-roll as to give the people a fair record of rights. The Teri Settlements were, in the words of Sir Dennis Fitzpatrick in 1895, not an ordinary piece of revenue work but really involved the adjustment of the terms of a political and agrarian revolution on a small scale. A good record of rights was obtained and the revolution was adjusted in a fairly satisfactory manner, so that no further words need be wasted in lamenting the disappointing results from a pecuniary point of view.

12. Enough has been said to show that Captain Hastings' assessment of the Kohát and Hangu Tahsils was an extremely lenient one. His estimates of yield and commutation prices were very moderate, and his actual

(See paragraphs 4 and 5 of letter No. 161 H, dated 31st August 1903, from the Rev. Soc. to the Ch. Comr., N.W.F. P., reviewing the Kohát-Hangu Assessment Report).

assessments were considerably below his estimates. This settlement naturally therefore worked very smoothly in practice. During the twenty years from 1882-83 to 1901-02 the total amount of land revenue suspended owing to unfavourable seasons was less than Rs. 38,000 or only 1·2 per cent. of the total demand. The greater part of this sum was subsequently collected after good harvests. The amount which had eventually to be remitted was only Rs. 4,470. Hailstorms occasionally did a

* These figures are merely estimates of the Khán's recoveries from land revenue.

† Excess in assessment imposed over assessment sanctioned due to super-imposition of taluqdari see paragraph 68 below.

great deal of damage, but appreciable loss from floods was only recorded in one year (1891-92). The amount of revenue remitted owing to these unforeseen calamities was however less than Rs. 17,000 in the twenty years. The only difficulty experienced in the collection of the demand has been not with the ordinary small land holders, but with the influential Khâns round Kohât, who have occasionally endeavoured to abuse their position in a way that has made things awkward for the revenue staff.

Mr. Tucker's Bârak assessment was a moderate one. It was, in the opinion of the late Colonel Wace, an opinion endorsed last year by the Chief Commissioner, a closer one and pitched at higher rates than would have been assessed in this exposed frontier tract if Government had not assigned its revenue to the Khân. But Colonel Wace did not think that the assessment was higher than the landowner had previously been paying, i.e., including irregular cesses then abolished. At any rate his anticipation that the demand could easily be met has been fully justified. In only one harvest (kharif 1899) has it been found necessary to grant suspensions and then only to the extent of Rs. 727.

The Khattak assessment was on the other hand a heavy one. It was pitched at a much higher rate than the Bârak one, and its distribution was a matter of great difficulty. This was partly due to a mistaken attempt to place some little reliance on the figures furnished by the Khân and his *diwâns* as to his realizations from the tract. The problem was complicated by the old division of the villages into those paying revenue in cash and those paying in kind and by the almost nominal sums to which the Khan's recoveries from the villages on the Wazîr border were admittedly confined. Some inequality in the distribution was therefore almost inevitable at the time, but it developed into a serious hardship in some villages. More especially was this the case in the worst part of the tract, the eastern portion of the Seni-Khwâram Circle. After the arrears which had accumulated during the time the settlement was in progress had been worked off, suspensions were however granted only in one harvest (kharif 1899) as in Bârak, the amount being Rs. 1,149. No suspended revenue has subsequently been remitted in the Teri Tahsîk.

Kohât is not a district which is liable to famine. But the great majority of the villages are entirely dependent on the rainfall for their crops, and considerable hardship is caused by its failure or unseasonable distribution. It cannot be said that in a district which is so largely an unirrigated one, there has been any tendency to excessive liberality in granting temporary suspensions of revenue. It is true that in bad seasons the people have little hesitation in travelling far afield in search of employment which in the past has generally been plentiful. They have also considerable extraneous resources, as will be seen, from their wagos in Government service, from their camels, cattle and flocks, and from the products of their waste-area such as *mazri*. Their revenue has moreover been on the whole light and the demand has been paid with little difficulty. However now that attention has been drawn to the matter, it is probable that the poorer classes of revenue-payers in the outlying villages will receive more sympathetic treatment. Hitherto the display of sympathy has been too largely confined to men of substance who forced themselves and their affairs on the notice of the authorities.

To conclude this review of the past revenue history of the district the following table is given to show the effect of the usual small changes in the revenue during the currency of the assessments:—

Tahsil.	AT THE COMMENCEMENT OF THE EXPIRED SETTLEMENTS.			AT THE END OF THE EXPIRED SETTLEMENTS.		
	Total revenue.	Assigned.	Recoverable.	Recoverable.	Assigned.	Total revenue.
Kohât	77,335	27,953	49,382	45,464	29,553	75,017
Hangu	31,092	10,948	20,144	19,440	11,060	30,500
Teri	86,833	10,639	76,194	71,243	17,158	88,401
District ...	1,95,260	49,540	1,45,720	1,36,147	57,771	1,93,918

The figures in the last three columns are taken from the assessment reports and are for the year 1901-02 for Kohát and Hangu, and for 1902-03 for Teri. The revenue shown as assigned in Teri consists of *jagirs*, *ináms* and *muafis* held by Akor Khels and other Khattaks from and at the pleasure of the Khán of Teri.

The decrease in the revenue of the Kohát and Hangu Tahsíls is due chiefly to the acquisition of a considerable quantity of valuable land for the Khushhálgarh-Kohát-Thal Railway. The progressive assessment already mentioned in the Thal Circle of Teri is the cause of the slight increase in the total revenue of that tahsil. The enhancement in the amount of revenue assigned by the Khán in Teri is nominal. The status of the Akor Khel jagirdars in the Khattak tract had not been definitely decided at the time of the settlement. Though the amounts drawn by them were only brought on to the revenue papers after the orders of Government had been received in 1898, the jagirdars had remained all along in the enjoyment of their grants. This subject is fully discussed in paragraph 18 of the Teri Assessment Report.



CHAPTER III.—PROGRESS SINCE LAST SETTLEMENT.

13. The total area of the district as now ascertained is 1,725,000 acres.

Cultivated area.

Out of this 1,210,000 acres, representing the immense proportion of 70

per cent., are unculturable hills, ravines, and stony or sandy waste. Only 30 per cent. of the area has been recorded as culturable. Of this again 206,500 acres, or 12 per cent. consist of culturable waste land of over four years' standing, much of which never has been and probably never will be cultivated; 13,940 acres are recently abandoned land liable to be brought under the plough in any favourable season. This leaves the land actually under cultivation at the final attestation of the measurements of this settlement at 294,560 acres, or 17 per cent. of the total area of the district.

In comparing the present cultivated area with that returned at the previous settlements certain qualifications have to be borne in mind. In the Kohát Tahsil and in Kuz Miranzai Captain Hastings' "cultivated" land included only land actually sown or prepared for sowing during the years of his measurements. Fallow land was classed as *ghair taraddadi jadid* which would include not only the land now classed as *banjar jadid* but also land which having borne a crop within the last four harvests would now be classed as "cultivated." In many villages, however, the *jadid* of last settlement was differentiated off into *eksála* and *dosála*; in such cases the former has been included in the cultivated area for the purposes of comparison with the new figures. In Bar Miranzai, as no measurements were made at last settlement, Captain Hastings had to be content with a very rough estimate of the cultivated area. Three such estimates were prepared of which the one that appears to have been the most reliable has now been adopted.

The cultivation on the Samána Range has, of course, come into our calculations now for the first time. The classification of the Paragraph 19, Kohát. Hangu Assessment Report. cultivated area in the two settlements in the Teri Tahsil was conducted on the lines now followed.

The figures in acres for the land under cultivation and regarded as culturable at the previous and the present settlements are—

Tahsil.	PREVIOUS SETTLEMENTS.				THIS SETTLEMENT.			
	Cultivat-ed.	Culturable waste.		Total.	Cultivat-ed.	Culturable waste.		Total.
		Old.	New.			Old.	New.	
Kohát	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Hangu	70,937	66,254	14,587	151,778	68,490	82,604	4,749	155,843
Teri	33,518	12,300	2,737	48,575	33,600	29,031	2,279	64,910
District ...	196,855	93,378	6,734	296,967	192,470	94,860	6,917	294,247
	301,310	171,932	24,078	497,320	294,560	206,493	13,945	515,900

From this table it would seem that, in spite of the inclusion of 887 acres of cultivation on the Samána, there has been a decrease in the cultivated area of the district as a whole of 6,750 acres. This decrease amounts however to only 2·25 per cent. or excluding the Samána 2·5 per cent., and is in my opinion more apparent than real. A little land on the fringe of the cultivation may have been deserted, but it has to be remembered that at a first settlement there is a tendency to scratch a certain amount of waste over with a plough in order to secure an entry of private ownership; the entry being made, the land reverts to waste until thoroughly reclaimed. Again, and this applies chiefly to the Khattak Settlement, large plots containing cultivated, culturable and unculturable land were measured in one field number, the differentiation of the cultivated portion being of the roughest description; this has now been altered and the true cultivated area carefully calculated. The acquisition of some 1,300 acres by Government, chiefly for the railway, has reduced the cultivation by that amount, and in places patches of land have been washed away or rendered

useless by the action of mountain torrents. The reclaiming of land from the hill side counterbalances this however.

On the whole therefore I think it is safe to say that cultivation has remained practically stationary, while there has certainly been considerable improvement in the profits from agriculture, due to the more careful development of the better as distinguished from the poorer classes of land.

14. It is evident from the preceding paragraph that no argument for an enhancement of the land revenue can be based on an increase in prices.

cultivation. But there are other factors which have to be taken into account. There has undoubtedly been a great advance in the general prosperity of the district. This is due to the peace and tranquillity which Government has secured to the people by the occupation of the Samána and the Kurram Valley and by the provision of improved means of communication of all kinds. In these respects there has been a great change in the last thirty years, and Government is now entitled to expect in return for these benefits a larger share in the proceeds of agriculture than it could fairly demand in the rougher days of trouble and isolation.

One of the best proofs of these improvements is their effect in raising and steadyng the prices of agricultural produce. In the following table a comparison is made between the average prices per maund at which the chief crops of the district were selling prior to and since the Kohát Settlement. For the prices since 1875 only those obtaining at *harvest time* have been considered:—

Crop.	AVERAGE HARVEST PRICES, 1875—1899.			Crops.	AVERAGE HARVEST PRICES, 1875—1899.		
	Average prices, 1857-1876.	For the 25 years.	For 20 ordinary years.		Average prices, 1857-1876.	For the 25 years.	For 20 ordinary years.
		Rs. a.	Rs. a.			Rs. a.	Rs. a.
Wheat	1 8	2 7	2 0	Bajra	1 2	1 15	1 11
Barley	0 14	1 8	1 3	Kangni	0 14	2 1	2 1
Gram	1 6	2 5	1 14	Moth	1 3	2 4	2 1
Taramira	2 14 (Unhusked)	3 6 (Husked)	3 4 (Husked)	Mung	1 13	2 14	2 10
Rice	1 3	3 6	3 0	Til	3 5	5 1	4 15
Maize	1 2	1 14	1 12	Cotton	3 7	4 1	4 1

The figures given in the fourth and eighth columns as the average harvest prices for twenty ordinary years are obtained by excluding the prices of the three years of the Afghan War (1878-81) and the two years of the Tirah Expedition (1896-97). In these years the use of Kohát as a base for large bodies of troops and the collection of huge transport trains, dislocated prices to such an extent that it would not be fair to include them in calculating averages. In 1896-97 wheat was actually selling at times in Kohát at Rs. 6 a maund. It may be remarked however that such of the Kohát zamindars as had surplus produce to sell reaped the benefit of these extraordinary prices.

To arrive at an estimate of the general rise in prices which has taken place since 1875-76, the value of the main staples, for which the information is available, has been worked out at the average prices obtaining in 1857—1876 and in the twenty ordinary years in 1875—1899. For this calculation the gross produce as now ascertained of the following crops has been adopted:—

Kohát.—Wheat, barley, gram, taramira, maize, bajra, kangni, moth, mung, til and cotton.

Hangu.—Wheat, barley, maize, bajra, kangni, mung, til and cotton.

Bárak.—Wheat, barley, gram, *bajra*, *moth*, *mung* and cotton.

Khattak.—Wheat, barley, gram, *taramira*, maize, *bajra*, *mung* and cotton.

The results are—

	Kohát.	Hangu.	Teri.	District
	Rs.	Rs.	Rs.	Rs.
At average prices obtaining 1857—1876	4,52,239	3,15,337	8,92,876	16,60,452
At average harvest prices 1875—1899	6,39,400	4,56,687	12,44,650	23,40,737

This gives an all round rise of 41 per cent. in the value of the agricultural produce of the district. The conclusions I derived from these figures in the assessment reports were that there had been a rise in prices of 40 per cent. in the Kohát Tahsil, of nearly 45 per cent. in Hangu, of 30 per cent. in the Bárak tract, and of 10 per cent. in the Khattak part of the Teri Tahsil, since their respective settlements. The Settlement Commissioner, Mr. Wilson, in reviewing the Kohát-Hangu Assessment Report thought it might be taken as certain that actual prices had risen on the whole by more than 40 per cent. since Captain Hastings' Settlement. But the Chief Commissioner when passing orders on the report was of opinion that the rise had probably been under-estimated. In Teri the Chief Commissioner accepted my conclusions as to the rise in actual prices, but remarked that in a country like Teri where there is no large surplus available for export a rise in prices, so far from benefiting the zamindar, might be a positive disadvantage to him in so far as he had to purchase food grains to supplement his home-grown produce. This is true of *bajra* of which the people of the district make their daily bread, but not so much so of wheat which the ordinary zamindar hardly ever eats himself, but grows for sale to wealthier communities.

It may be of interest to note here the prices at which wheat and *bajra* have been selling at harvest time in the Kohát and Bannu markets since the averages used for this report were drawn up—

YEARS.	PRICE PER MAUND AT HARVEST TIME.							
	Wheat.				<i>Bajra</i> .			
	Kohát.	Bannu.	Kohát.	Bannu.				
1900	3 10 0	3 2 2	2 6 7	2 15 3				
1901	3 0 0	2 5 3	2 4 1	1 15 9				
1902	3 0 0	2 6 3	1 13 9	2 1 2				
1903	2 13 9	2 1 9	1 14 0	1 9 7				
1904	1 15 8	1 6 8	1 6 10	1 12 2				
1905	2 2 3	1 12 1	2 1 3	2 8 0				
Average	2 12 3	2 3 0	1 15 9	2 2 4				

Wheat is cheaper in Bannu than in Kohát, *bajra* as a rule is dearer. In only one year out of the last six has the price of either grain at Kohát fallen below the average price adopted for assessment purposes (*vide* paragraph 30). Most of the Thal and much of the Nari-Chauntra wheat goes to Bannu and the price there regulates the profits of the zamindars.

15. Possibly in no respect has there been a greater improvement during the last twenty-five years than in the matter of communications. In

1880 the only metalled road in the district was the road from Kohát to Khushbálgárh. The Bannu road was only metalled for the first three miles out of Kohát; there were no bridges on it. Mr. Tucker says it was kept in fair repair, and was practicable for carts and *ekkus*, but as the road ran in many places along the bed of mountain torrents it was often impassable during rainy weather. The road from Kohát to Hangu was unmetalled and beyond Hangu to Tha

became a mere track again after the exigencies of the Afghan Campaign were finished. The Peshawar road after the unsuccessful attempt made to improve it in 1877 was left in a state of nature, the only portion kept under repair on this side of Matanni being the actual ascent and descent of the Kohát *Kotal*. The side roads and village paths were desperately rough.

The railway was extended from Rawalpindi to Khushbálgarh during the Afghan War. The Indus was crossed then as now by a bridge of boats which used to be dismantled during the rains but is now kept open all the year round. A light railway on a 2' 6" gauge was constructed from Khushhálgarh to Thal in 1901-02. It was opened for traffic to Kohát in May 1902, and in April 1903 to Thal. It is now undergoing conversion to the broad-gauge, and a railway and road bridge is being constructed over the Indus. This bridge will, it is hoped, be finished in a year or two. Surveys have been made for a continuation of the railway to Parachinar in the Kurram Valley.

The road from Kohát to Hangu was metalled some time ago. In the past few years metalling and bridging on the portion on to Thal has been actively pushed on, though the road still runs through the bed of all the large streams. The crossing over the Khánki stream at Rais is the only place where traffic is incommoded, freshets occasionally rendering the passage actually dangerous.

The Bannu road was realigned and metalled in 1889, when all the ravines and large *nullahs* were bridged with the exception of the broad sandy Changosh *nullah* beyond Latambar. It is now in excellent condition and is traversed daily by a through tonga service between Bannu and Pesháwar. A branch cart-road has just been constructed to the Jatta Salt Mines.

The improvement of the road through the Kohát Pass to Pesháwar hung fire from 1877 to 1900-01, when an agreement was entered into with the Afridis, under which the road has been metalled, and made as safe as Piccadilly. At the same time a new alignment possible for wheeled traffic was made over the *kotal*.

The other main roads are:—

the Kbaírbád (Attock) road taking off from the Khushhálgarh road eight miles from that village and running over the Niláb Ghásha past the Lukh Taláo and Nizámpur *thanas* ;
 the road from Hangu to Fort Lockhart and the Samána posts, connecting with the Shinawari-Káhi and the Shiuawari-Nariáb roads ;
 the road from Kohát to Shakardárra past Dhoda and Málgin ;
 the Thal-Teri and Thal-Bahádur Khel roads, and the salt roads from Jatta Ismail Khel to Málgin and thence on via Nákband to the Kohát-Khushhálgarh road ;
 the Bánda Dáud Sháh-Kárk and Bahádur Khel-Kárk roads over the Krár Range ; and
 the Shakardárra-Kárk-Latambar road through the Chauntra valley.

A road has been constructed and partially opened out between Thal and Idak in the Tochi Valley, but it runs across the border outside this district.

A great deal has been done lately to improve these roads, and many others of less importance, especially by the Salt Department in the Teri Tahsil. Enough has been said to show that a vast improvement has taken place. Only a few of the main roads are fit for carts, but owing to the rough and broken face of the country the people are naturally restricted to camel, bullock and donkey transport. Except at the salt works, traffic in the interior of the district is not sufficient to justify the expense of metalling the roads. To encourage the use of carts in hilly country unless the roads are exceptionally well made and carefully aligned would be mere cruelty to the undersized ill-fed bullocks which are to be found in the villages. Since the advent of the railway the little wheeled transport that there was in the district has diminished. The steam engine, the only possible competitor with the camel, has already been introduced, and all we should attempt to do now is to make things easier for that most indispensable animal.

As to river transport there are ferries on the Indus at Shádipur and Makhad, but the traffic there and in boats on the river can hardly be said to affect the district.

16. Since the Regular Settlement a census of the population has been taken on two occasions, viz., in 1891 and 1901. The results are shown below. Owing to changes in boundaries the figures for the Census of 1881 do not quite agree with those given in Mr. Tucker's Settlement Report:—

Tahsil.	YEAR OF CENSUS.			
	1881.	1891.	1901.	
Kohat	59,726	73,445	78,747
Hangu	30,520	36,242	43,106
Teri	81,374	85,460	96,012
Whole District	...	171,620	195,147	217,865

The increase in the first decade was 13.7 per cent. and in the second 11.6 per cent. The marked change in the peace and prosperity of the district since 1881 is brought out by the increase of almost 27 per cent., which has occurred in the population.

The only town in the district is Kohát, with a population of 30,762, of whom 12,670 were classified as belonging to cantonments. Hangu contains 4,961 inhabitants, mostly agricultural in their pursuits. The Teri tahsil, with the exception of a few large villages, is almost entirely a country of small hamlets and scattered farms.

Excluding the urban population of Kohát and the large number of troops quartered in the district at the time of the census, it is estimated that the population dependent on agriculture and the pressure on the soil are approximately as follows:—

Tahsil.	Estimated agricultural population.	Persons per square mile.	Persons per square mile of cultivation.
Kohat	54,550	73	510
Hangu	39,700	95	763
Teri	96,000	63	319
Whole District	190,250	71	414

Practically the whole of the agricultural population are Muhammadan by religion and 70 per cent. of them are Patháns.

17. The district is now divided into 298 estates. Of these Government ownership and tenancy. is the sole proprietor of 15 estates in the Kohát and Hangu tahsils, and in Teri the Khán and his family own 29 estates. There are only 13 other small villages in which the *zamindari* tenure prevails.

The tenure of the Bangash and Khattak settlers was originally communal. Each sub-section of the main tribal divisions was divided into *tarafs* and *pattis* in which the descendants of the first settlers hold shares or *bakhras*. The Pathán expression for a holder of an ancestral share in the *daftari* or settlement of a section is *daftari*. The division of the *daftaris* or members of the proprietary body of a village by *bakhras* is still recognised in the *lambardari* arrangements, and in apportioning each owner's share of any common burdens, such as the furnishing of escorts (*badrargas*, *chighas*, &c.). Subsequent settlers, who have been given or have appropriated land to cultivate, have not the status of full proprietors with a voice in the village councils, but are inferior proprietors (*adna maliks*) or merely owners of the land in their possession (*malikan kabza*). Inferior to these again are the mere tenants, either with or without rights of occupancy.

The Pathán constitution is essentially a democratic one. Private property in land used not to be recognised. Each man as he attained manhood was entitled to a share in the village land, which was all held in common by the tribe or section. In early times a man on marrying and setting up a house of his own could claim a re-distribution of the cultivated area. I came across a curious custom in one village where this re-distribution was deferred until the number of newly married households requiring land was five. The next stage was for the cultivable land to be re-distributed at stated intervals of five, fifteen or twenty years. This system of *vesh* was theoretically at any rate in force in Bar Miranzai when the present settlement proceedings began. In the rest of the district the custom had disappeared either prior to or along with the introduction of measurements and recorded rights at the previous settlements. In Bar Miranzai all the villages except one agreed to recognise the existing allotment of the land as the final one. In that village—Káhi—a new distribution was carried out by the people and their lambardars : it is to be final, and measurements have been effected in accordance with it without any difficulty. This interesting but unprogressive old custom has now happily disappeared. Each landowner has now the incentive of undisturbed proprietorship to encourage him to improve his land.

Among the Khattaks the communal feeling was either never very strong or was displaced by the idea of individual ownership at a very early date. As long as fresh cultivable land was available men left the parent village and, with the tacit consent of their fellow *daftaris*, set up houses (*kor* or *lugah*) for themselves on spare land. It was on the number of *lugahs*, not on the land, that the Chief found it convenient to levy taxes in the shape of revenue. The land each man thus took possession of came to be regarded as his property, and possession, not ancestral shares, became the measure of right. This was especially the case in the Bárak and Darra *tappas* : in Seni and Khwarram the village community remained more compact.

The regular settlements accompanied by measurement of the land crystallized these various rights. We now find throughout the district the ordinary features of *pattidari* and *bhayachara* tenures, mixed and unmixed.

At the previous settlements the number of proprietary holdings was 42,216 ; it is now 58,832, an increase of 39 per cent. The number of landowners has increased by 14 per cent., from 47,126 (Muhammadans 46,911, Hindus 215) to 53,599 (Muhammadans 52,874, Hindus 725). In the Kohát Tahsil the number of owners and of holdings is practically the same. In Hangu and Teri the number of holdings greatly exceeds the number of owners, owing to the fact that many of the men own land in more than one subdivision of a village.

The holdings, as one would expect from the density of the population, are very small.

TASIL.	AVERAGE CULTIVATED AREA IN ACRES PER HOLDING.		AVERAGE CULTIVATED AREA IN ACRES PER OWNER.	
	At last settlement.		Now.	
Kohat	6.3	5.2
Hangu	9.6*	7.3*
Teri	6.7	6.4
Whole District	6.7*	5.3

* Excluding Bar Miranzai.

The holdings are naturally smallest in the thickly populated and minutely cultivated irrigated tracts in the Kohát and Hangu tahsils. In the China Circle of Kohát the average proprietor owns only about $1\frac{1}{2}$ acres of cultivated land : in the unirrigated Darra Circle of Teri he owns nearly 10 acres. In the district, as a whole, each landowner has $5\frac{1}{2}$ acres of cultivated land.

From the following figures, showing the cultivating occupancy of the land, it will be seen that the proportion of the cultivation which is carried

out by the landowners themselves is very high, being 57.3 per cent. for the district. For the Punjab generally the proportion is less than 45 per cent.

Cultivating occupancy.	Kohat.	Hangu.	Teri.	District.
Percentage cultivated by owners ...	51.1	59.5	59.2	57.3
" " by tenants free of rent.	0.8	5.9	3.2	2.9
" " by occupancy tenants.	6.8	11.7	8.5	8.5
<i>Percentage cultivated by tenants-at-will—</i>				
(a). Paying rent in kind ...	39.4	13.7	26.5	28.1
(b). Paying at revenue rates with or without <i>malikana</i> .	1.6	5.5	2.4	2.6
(c). Paying other cash rents ...	0.3	3.7	0.2	0.6
Percentage of cultivation cultivated by owners at last settlement.	62.5	53.8*	67.9	65.0

* Excluding Bar Miranzai.

Most of the land shown as occupied by tenants free of rent is land which has been brought under cultivation since last settlement. The cultivating share-holders or tenants now pay at least the revenue due on the land. As the new quadrennial attestations are gradually completed this area will be transferred to the heading "paying at revenue rates."

The number of occupancy tenants is small. There are practically none in Shakardarra, Bar Miranzai and the three Barak Circles. The majority of the tenants having occupancy rights are to be found on the Crown lands in Kohat and Hangu and the lands owned by the Khan's family in Teri.

True cash rents are almost unknown in this district. The land shown as cultivated on cash payments is chiefly the land occupied by a few small hamlets in the Hangu Tahsil, the sums paid in cash being an acknowledgment of the superior proprietary rights of the *daftaris* of the parent village.

Tenants-at-will paying kind rents occupy 28 per cent. of the cultivation. Many of them are really landowners cultivating land outside their own holdings. The rent rates are fixed by custom and are generally one-half or one-third on irrigated and one-fourth or one-fifth on unirrigated land.

The district is distinctly one of small peasant proprietors, many of whose holdings have, owing to sub-division, become perilously minute. Those with large families have perforce to find employment for their sons off the land.

18. The extent to which the landowners of the district are in debt was fully discussed in paragraphs 27—34 of the Kohat-Hangu Assessment Report, and paragraphs 30—36 of the Teri Assessment Report. As the vast majority of mortgages and sales are between landowners, the statistics regarding the alienation of land require somewhat careful analysis. The following table gives the more important figures:—

		Kohat.	Hangu.	Teri.	District.
MORTGAGES.	Cultivated area mortgaged at last settlement ... Acres	3,324	218	52,783	56,325
	Cultivated area mortgaged { Kohat-Hangu, 1901-02 } ... now, ... ,	7,051	1,690	61,908	70,649
	Percentage of total cultivated area excluding Crown lands ...	11.5	5.8	32.1	25.0
	Cultivated area mortgaged to money-lenders ... Acres	2,508	275	12,276	15,069
	Percentage of latter to total cultivated area excluding Crown lands	4.1	.9	6.4	5.3
	Consideration money for all mortgages per cultivated acre Rs.	52	94	25	28
SALES.	Total cultivated area sold { Kohat-Hangu 25 years, Barak 17 years, Khati since settlement, tak 10 years. } ... Acres	19,387	6,154	23,678	49,219
	Percentage of total cultivated area excluding Crown lands ...	31.6	21.1	12.3	17.4
	Average percentage sold annually ...	1.3	.8	.9	1.0
	Cultivated area sold to money-lenders since settlement, Acres	3,142	630	2,012	5,784
	Percentage of total cultivated area excluding Crown lands ...	5.1	2.2	1.0	2.04
	Purchase money per acre for all sales ... Rs.	40	37	28	34

* Kuz Miranzai only.

Thus one-fourth of the cultivation (excluding Crown lands) is mortgaged, but only one-nineteenth is in the hands of money-lenders. There are two reasons for the extensive mortgages between landowners. Many of these transactions are really permanent transfers or sales, especially in the Bárak circles, between men owning scattered fields situated in several villages or in different parts of a large village. By thus clubbing together scattered holdings in the possession of men whose houses happen to be near the fields cultivation is facilitated. The tenacious Pathán mind prefers a redeemable mortgage to an irrevocable sale. In the second place a man, when he enlists in the army or other branch of the public service, often mortgages his land to a neighbour in order to secure its continued cultivation. The money obtained furnishes him perhaps with the necessary funds to join a cavalry regiment in the Frontier Force; with his savings while in service he will be able to redeem the land on returning to his home. Such transactions are no sign of indebtedness for which we must look to the mortgages and sales to money-lenders. In parts of the Teri Tahsil it is true that there is little inducement to Hindus to advance money on land; here a zamindar has to seek relief at the hands of his neighbours if in want of money.

What proportion of the total nominal debt of $20\frac{3}{4}$ lakhs* of rupees on the land should be thus classed as more

	Rs.
*Kohát	3,66,147
Hangu	1,58,105
Teri	15,51,312

or less fictitious, it is impossible to say. Extravagance, the Pathán love for display, gambling, litigiousness and

the costly luxury of crime have ruined many men. But after all only 5·3 per cent. of the cultivation is pledged to money-lenders.

The Pathán regards his land as more of a chattel than the ordinary Muhammadan zamindar. Since the previous settlements about one-sixth of the cultivated area has changed hands by sale, at the rate of one per cent. of the total per annum. Money-lenders have, however, only bought up two per cent. of the cultivation, the proportion being naturally highest in the villages near Kohát. The amount of land purchased by them each year is therefore quite insignificant.

These figures do not point to any extensive expropriation of the land-owning classes. The Pathán inhabitants were themselves averse from the introduction of the Punjab Land Alienation Act, which has consequently not been extended to the Kohát District. Should the future show that there is any need or demand for the remedy provided by the Act, it can quite easily be applied.

19. The figures in the last paragraph show that the average sum for which an acre of cultivated land is now mortgaged is Rs. 29 for the whole

district, and varies from Rs. 94 in Hangu and Rs. 52 in Kohát to Rs. 25 in Teri. Adopting the figures given in paragraph 330 of the Kohát Settlement Report, and in paragraphs 37 and 10 of the Bárak and Khattak Reports, it appears that the corresponding rates at those settlements were Hangu Rs. 37, Kohát Rs. 30, Bárak Rs. 15, and Khattak Rs. 13. The Bárak figures, it should be remarked, apparently include uncultivated or at any rate fallow lands. Taking them as they stand the average consideration money per acre for the whole district was Rs. 16.

Excluding Bar Miranzai, the total sum for which land was hypothecated at the previous settlements was Rs. 10,67,600; this amount has now risen to Rs. 19,62,900, an increase of 84 per cent., whereas the cultivated area under mortgage has only increased from 56,325 acres to 69,530 acres, or by 23 per cent.

Similarly land which used to sell in the Kohát Tahsil for Rs. 36, in Hangu for Rs. 18, in Bárak for Rs. 23, and in Khattak for Rs. 20 per acre, now fetches in Kohát Rs. 59, in Hangu Rs. 49, and in Teri Rs. 31 per acre. For the district as a whole the price of land has risen from Rs. 24 to Rs. 42 per cultivated acre.

Some of the earlier figures are not quite satisfactory, partly owing to the difficulty of distinguishing cultivated from uncultivated land, and also because land used to be mortgaged and sold in the wilder parts of the district not against money, (and sometimes even then against *Kabuli* rupees) but in kind against sheep, goats and grain. Instances have even been found of land being mortgaged against the value of a wife. These transactions have been reduced to the terms of the currency as well as possible.

The price at which cultivated land has sold since settlement is shown below.—

	Period.	Kohát.	Hangu.	Teri.	District.
		Rs.	Rs.	Rs.	Rs.
	1877—81	43	28	...	42
	1882—86	30	35	...	31
Average price per cultivated acre.	1887—91 (Teri 1886—92) ...	34	19	32*	31
	1892—96 (Teri 1893—97) ...	22	38	24	28
	1897—1901 (Teri 1898—1902) ...	59	49	31	42
	Since Settlement ...	40	37	28	34
Price of land sold during the last five years divided by the revenue payable on it.		62	58	68	63

* Bárak only.

Though these figures show fluctuations, the only conclusion which can be drawn from all these statistics taken together is that there has been a real and very substantial increase in the value of land. The fact that land has been selling lately at 63 years' purchase of the land revenue shows that the revenue is certainly light and that a large margin for profit is left by the assessment. According to this criterion the most heavily assessed circles comparatively have been Seni-Khwarram and Kuz Miranzai where land has been selling at 32 and 35 times the land revenue, and the most lightly assessed has been the Lawaghar where 321 times the land revenue was actually obtained for cultivated land. These results have of course to be corrected in our minds by the known scarcity of culturable land in the poorest circles.

20. Under the general orders now in force a quinquennial cattle census takes place in the cold weather in the month of February. This practice gives entirely false results in a district like Kohát, for from the middle of November to the end of March it is visited by large bands of Ghilzais, Wazirs and other nomadic tribes from across the border, whose chief means of subsistence consist of the flocks and herds they bring with them to graze. Accordingly a special cattle census was taken by the settlement staff in October 1902 in the Kohát and Hangu tahsils and in October 1906 in Teri. The results were :—

Tahsil.	Date.	Horses, mules and donkeys.	Sheep and goats.	Bullocks and donkeys.	Camels.
Kohát ... {	At last settlement ...	31,427	56,708	1,631	1,292
	1902 ...	30,601	73,426	4,736	1,325
Hangu ... {	At last settlement ...	22,520	8,489	948	39
	1902 ...	26,356	29,819	1,782	19
Teri ... {	At last settlement ...	53,922	83,797	9,591	1,103
	1903 ...	52,531	91,928	11,438	1,343
District ... {	At last settlement ...	107,869	148,994	12,170	2,434
	1902-03 ...	109,488	195,173	17,956	2,687

There has thus been a very material increase in prosperity in this respect. There is little change in the number of cattle, the increase being only 1.5 per cent.; but the number of sheep and goats has increased by 31 per cent., of horses, mules and donkeys (almost entirely donkeys) by 47.5 per cent., and of camels by 10 per cent. It may be doubted, however, whether there has been any

increase in the number of camels. The enumeration carried out during the Kohát-Hangu Settlement came at a time when the district was depleted of camels owing to the Afghan War. In 1883 Mr. Tucker estimated the number of camels in the Kohát and Hangu tahsils to be 1,880. (Vide paragraphs 265—268 of the Kohát Settlement Report). How fallacious such estimates may be is shown by the estimates he then framed of the animals in the Teri Tahsil, based on a rough census made in the cold weather of 1882-83 of the cattle in the Bárak tippas. This estimate gave 40,000 bullocks, cows and buffaloes, 36,000 sheep and goats, 500 horses and mares, 1,500 donkeys and 1,500 camels for the tahsil. If the estimate was near the truth, the increase in the number of live-stock in twenty years in Teri has been enormous.

The figures quoted in the table above have been taken from the village registers for the years in which the previous settlements were completed, and agree to all intents and purposes with those given in the settlement reports. They represent the number of animals belonging to the villagers, just as the census taken during this settlement purports to do. One has only to point to the increase in the number of sheep and goats in Miranzai to show yet once more what a settled form of Government has done for the people.

Estimates, the details of which will be found in the Assessment Reports, have been framed as carefully as possible of the profits the people derive from their cattle and flocks. They give a total income from this source of Rs. 81,600 in Kohát, Rs. 33,500 in Hangu, and Rs. 1,26,300 in Teri, or a grand total for the district of Rs. 2,41,400. This estimate is admittedly a somewhat rough one, but even so it goes to prove that the revenue assessment of Rs. 1,94,000 must have been lightly felt where the people possess such great extraneous resources, on which, except in Teri, they pay no taxes.

The area under cultivation having remained practically the same, no change calling for notice has occurred in the number of plough oxen and ploughs. The numbers were 53,600 oxen and 26,500 ploughs, and are now 52,800 oxen and 27,160 ploughs.

The cattle of the district are poor miserable little creatures. They are given but little green fodder and have to pick up what they can grazing on the fields, in glens and on the shady sides of the hills. The goats are good and the sheep, especially the fat-tailed *dumba*, excellent animals. The Miranzai mutton is famous for its quality. There are only 1,455 horses and ponies in the district and these are of a poor class. Even the camels are found to be wanting in stamina when taken off the easy salt trade.

21. Besides their cattle the inhabitants of the district have a large and reliable source of income in

Miscellaneous income of the people.

Government service. The Khattak

is a well-known soldier, and certain sections of the Bangashes also enlist freely. The number of men in the district who have done service of some sort in one department or another is extraordinary. Apart from Government employment they are most enterprising travellers in search of their daily bread, working in Muhammadan States in Southern India, as lascars on steamers and so forth.

But the amount spent by Government in pay and pensions on men of the district is, considering its size and population, so large that it merits setting out in some detail. I have had returns prepared by the patwaris for each village with the following results:—

Tahsil.	Army and reserve.	Border Police.	Other departments.	Pensioners.	Total.
Kohát	Number of men ...	1,114	535	360	131 2,140
	Pay per annum ... Rs.	1,58,865	54,785	81,936	14,114 3,09,700
Hangu	Number of men ...	316	313	74	... * 705
	Pay per annum ... Rs.	69,346	46,884	9,065	...
Teri	Number of men ...	797	525	229	93 1,644
	Pay per annum ... Rs.	1,12,097	76,600	24,798	9,248 2,22,743
District	Number of men ...	2,227	1,373	663	224 4,487
	Pay per annum ... Rs.	3,40,308	1,78,269	1,15,739	23,362 6,57,678

* The pensioners in Hangu were unfortunately classed with the men still in active service.

There are thus 3,600 men employed in the army and in the defence of the border. Altogether nearly 4,500 men draw stipends from Government, averaging Rs. 146-8 per annum or over Rs. 12 per mensem. The amount which Government disburses on men belonging to the district is more than 6½ lakhs of rupees, and is equal to almost 3½ times the land revenue demand. Of course most of the pay of the men in actual service is spent in keeping themselves and their families. But their savings are considerable and, with the pensions of retired men, are a direct source of strength to the countryside. The Ságri Khattaks of Shakardarra with their numerous retired native officers, most of them with the Mutiny medal, at once occur to one as an example.

The Teri salt mines afford the people in the villages near them two sources of income,—(1) their earnings as miners excavating the salt; (2) the *ináms* granted by Government to secure their peaceful co-operation with the Salt Department. In paragraph 27 of the Teri Assessment Report, I estimated that the miners earned Rs. 17,368 per annum. The total amount granted in *ináms* has been raised from Rs. 11,050 in 1872 to Rs. 28,192 in 1883, and to Rs. 49,465 since 1896. Of the latter sum the Khán of Teri gets Rs. 10,000 per annum and the Khán of Makhad Rs. 1,500; Rs. 2,747 are enjoyed by Khanzádas and selected lambardars, while the remaining Rs. 35,218 are distributed between the general body of the villagers. Some of the villages situated actually at the mines receive in this way in hard cash sums equal to three or four times their land revenue. The effect is, however, quite local.

In the same way the income derived by some of the villages from *mazri* or the dwarf palm is also local, being confined practically to Miranzai and the Darra Circle. Since the cheapening of the cost of transport by the construction of the railway to Thal several villages in Upper Miranzai have made large sums of money out of this most useful plant.

It is impossible to estimate, with any approach to accuracy, the income from *mazri* or from the sale of wood, and in places charcoal. In the wilder parts of the district the people in fact depend on the products of their hill-sides and the flocks they can graze on them, and not on their land for their means of subsistence. Their difficulties produce a fine hardy race of men.

22. The instructions now in force on this subject were not received in time to allow of an estimate of the surplus produce of the tahsils being prepared for the Kohát-Hangu Assessment Report.

Calculation of surplus produce.

In paragraph 22 of the Review of the Teri Assessment Report the excess of production over consumption in that tahsil was estimated at one lakh of rupees. But in January 1904, a report on the production and consumption of food grains in the North-West Frontier Province was submitted to the Government of India. From that report the figures in the table below have been abstracted. They show that the produce of the district is in deficit to the extent of 8,263 tons of crops required for feeding the population. This is explained partly by the presence of an unproductive military garrison, large in proportion to the total population. But it would be surprising if any other result were obtained from statistics. The Khattak and Bangash residents simply do not attempt to live on the produce of the scanty area available for cultivation in the midst of their barren hills. They do not at present get as much out of the land as they might, but their extraneous resources are so large that there is no particular reason why they should strive to equalise matters more than they do. They appreciate the benefits of regular pay in Government service of all kinds, and their income from their cattle, from their salt trade, from the spontaneous products of their soil such as wood and *mazri* and from their hard work as carriers, is so large that one cannot blame them for not living down to their purely agricultural means. The Thal and Chauntra tracts export grain towards Bannu, but the rest of the district is far from self-supporting. Most of their imports of grain come, I believe from the Saugla station in the Chenab Colony.

Statement showing estimated deficit produce.

1 Period.	2 Population exclusive of children under two years.	3 Total area under food crops.	4 Total outturn of food grain.	5 Food grain consumed by the people.	6 Seed grain.	7 Green fodder.	8 Wastage.	9 Consumption by cattle	10 Total accounted for.	11 Net deficit.
	Souls.	Acres.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
The quinquennium ending with the year 1901-02.	205,677	207,184	47,148	44,528	3,344	1,886	2,858	3,300	55,411	8,263 Deficit.

Notes.—Figures for columns 2 to 8 have been taken from the statement appended to Chief Commissioner's letter No. 197 G., dated 29th January 1904, to the Government of India, Revenue Department, and those for column 9 have been calculated at the standard fixed in paragraph 9 of that letter.



CHAPTER IV.—THE NEW ASSESSMENT.

23. In the Forecast Report on the probable results of the re-assessment of the district submitted by Mr. H. P. Orders for re-assessment. Tollinton, Officiating Deputy Commissioner,

in July 1898, the increase in the land revenue to be expected was put at Rs. 65,360. The Settlement Commissioner, Colonel Montgomery, thought the increase would be much higher, and estimated it at Rs. 1,20,640, but the Financial Commissioner, Mr. Thorburn, declined to anticipate an enhancement of more than Rs. 73,720. Excluding the large proportion of assigned revenue but allowing for the lapse of the remission of Rs. 2,000 in the Khán of Teri's quit-rent, this estimate gave an increase in the *khalsa* revenue from the district of Rs. 42,525. The Lieutenant-Governor was in favour of the settlement being undertaken both for fiscal and administrative reasons, and the proposal was sanctioned by the Government of India in their letter No. 1219 L-R., dated 2nd June 1899. The formal announcement of the re-assessment was made in Punjab Government Notifications Nos. 232 and 233, dated 10th October 1899. A further Notification No. 121, dated 18th June 1900, directed that records of rights should be prepared for the estates in the Bar Miranzai Circle of the Hangu Tahsil where no such records existed.

The re-assessment proceedings have been conducted in accordance with the instructions contained in the Punjab Settlement Manual issued in May 1900.

24. The first thing to be done was to divide the district into appropriate assessment circles and to determine the various classes of soil for which

it would be necessary to frame different estimates of outturn and consequently separate rates for assessment purposes. In both cases it was felt to be advisable to disturb the existing condition of things as little as possible. At the same time it was found that the piece-meal manner in which the previous settlements had been conducted had led to the adoption of an excessive number of assessment circles. A report on this subject was submitted in September 1900, the proposals contained in it being sanctioned by the Financial Commissioner in his Secretary's letter No. 551, dated 26th January 1901.

The effect of the re-arrangement was to reduce the number of circles from sixteen to eleven. A twelfth circle has since been formed by the measurement of the Samána Range. The following table shows how the new and old circles correspond with one another:—

Tahsil.	New assessment circle.	Former assessment circle.	Tahsil.	New assessment circle.	Former assessment circle.
KOHAT	China	China Payan.	Teri ...	Seni—Khwarzram ...	Seni.
	Toi	Toi I.		Khwarzram.	Khwarzram.
	Kobi	Toi II.		Darra	Darra.
	Shakardarra ...	Kobi.		Nari—Chauutra ...	Nari.
HANGU	Kuz Miranzai ...	Shakardarra.		Bar Chauutra.	Bar Chauutra.
	Bar Miranzai ...	China Bala.		Kuz Chauntra.	Kuz Chauntra.
	Samana	Kohi Daman.		Thal	Thal.
		Bar Miranzai.		Lawaghar	Lawaghar.
	

The *China* (or spring) Circle corresponds to the old Samilzai *tappa*. It contains 16 villages situated in the north-west corner of the Kohát Tahsil, on the upper reaches of the Toi and in the Kachai and Marai valleys. This is an extremely fertile little circle. Of the cultivated area 58 per cent. obtains perennial irrigation chiefly from springs, and seven-tenths of the irrigated area bears a crop in both the *kharif* and the *rabi* harvests.

The *Toi* Circle is the old Baizai *tappa*. It contains 56 villages occupying the remainder of the main portion of the Kohát Tahsil. A considerable area is irrigated from springs, but nearly three-fifths of the irrigation is dependent on the water in the Toi. This water becomes exhausted in the upper water channels

or percolates through the bed of the stream, which is generally dry below the town of Kohát. The villages lowest down on the irrigation system such as Togh and Jarma have to rely mainly on freshets caused by rain in the Khánkí valley for their water. Much of the single cropped *abi* land is irrigated and sown every second or third year only. The water re-appears in the Toi by Dhoda, and irrigates some fertile land along its banks, but its general level is too low to enable it to cover the large tracts of good land lying on its south bank. Of the total cultivation in this circle 56 per cent. is unirrigated and does not appear to have been as carefully cultivated hitherto as it might have been. The irrigated area amounts to 21,800 acres, of which 72 per cent. only produces one crop in the year.

The *Kohi* Circle is a detached block of 14 villages in the north-east corner of the district between the Indus and the Jowakki country, and adjoins the Khwarra-Niláb tract of the Pesháwar District. It used to be known as the Zira and Pattiala *tappas*. As its name implies it is a bare bleak hilly piece of country. The cultivation only amounts to 7,375 acres out of a total of 89,810 acres, and of this only 100 acres are irrigated.

The *Shakardarra* Circle is another detached portion of the Kohat Tahsil lying on the Indus and occupying the south-eastern corner of the district. The Ságri Khattaks who own the land have maintained joint possession of the hills and unoccupied land so that with the exception of two grazing *rakhs* the whole tract forms one revenue estate though for measurement and assessment purposes it has been divided into 13 different blocks or *tukras*. Round the main village of Shakardarra and its adjacent hamlets there are fine stretches of open land with good soil, but towards the river the country is precipitous and desolate. Only 6,480 acres out of 108,700 acres are cultivated and the whole of the cultivation is dependent on the rainfall. The level land is carefully embanked and well tilled, and retains moisture to an extraordinary extent. Such of the hill-sides as are cultivated are bare and stony.

The *Kuz Miranzai* Circle is simply the eastern portion of the Miranzai valley which drains towards Kohát. There are 27 villages containing 19,186 acres of cultivated land. Of this 4,478 acres or 23 per cent. receive perennial irrigation from streams, springs or small wells. The sloping nature of the ground renders the embanking of the fields in order to retain the rainfall particularly useful, and a feature of the cultivation is the number of tanks at the foot of the hills west of Hangu which protect 950 acres of land.

The *Bar Miranzai* Circle consists of 9 estates occupying the western portion of this valley. The drainage is into the Kurram River. As far as natural advantages are concerned the two parts of the Miranzai valley are very similar, but Upper Miranzai is far less well developed than Lower. At present 35 per cent. of the cultivation is irrigated, a proportion that will probably rapidly decrease as the good level waste land in the centre of the valley is broken up and brought under the plough. The land has now been measured for the first time, this being the first regular settlement. The old summary revenue was so inadequate that the circle had to be maintained as a separate assessment circle. At next settlement it will probably be feasible to treat the whole of Miranzai as one circle.

The *Samana* Circle comprises seven small villages on the southern slope of the Samána Range which has come under effective occupation since 1891. Cultivation is carried on with difficulty on small fields reclaimed from the sides of the hills. The tract was measured towards the end of the settlement proceedings. The total area has been put at 12,448 acres of which 887 acres are cultivated—all unirrigated except 6 acres. This circle is under summary settlement, the people paying a tax of 8 annas a house; no assessment has been imposed on the land.

The *Seni-Khwarra* Circle occupies the north-eastern portion of the Teri Tahsil and fills up the gap between the outlying circles of the Kohat Tahsil. On its eastern side it is bordered by the Indus, the face of the country in this direction being very hilly and extremely bare and barren. There are 54 villages in the circle. About one-seventh of the total area is cultivated. Only one per cent. of the 41,300 acres under cultivation are irrigated.

The *Darra* Circle is the name given to the remainder of the northern half of the Teri tahsil. It lies between the Miranzai valley and the Mirandai range with independent Waziri country on its western border. It contains 39 villages, one of them—Teri—being the head-quarters of the Khattak Khán. The drainage is by the Teri Toi into the Indus. The cultivated area is 33,873 acres. Of this only two per cent. is irrigated, chiefly in small patches on the various little streams.

The *Nari-Chauntra* Circle combines the former Nari and Upper and Lower Chauntra Circles. The Nari tract is a series of upland plateaus. Chauntra is a broad fertile valley with a light soil sloping gently towards the west. Known as the "granary of Kohat", it has long been famous for its "Khattaki" wheat. Except in the north-eastern corner of the circle the drainage is towards the Kurram. There are 47 villages with 41,400 acres of cultivation. Round Kark and to its east there is a small lowlying block of land where shallow wells can be sunk. The area thus irrigated in this pleasant little oasis is about 415 acres at present. With this exception the cultivation of the circle is practically all unirrigated.

The *Thal* Circle is quite distinct from the rest of the district. It forms, as already remarked, really part of the Marwat plain in Bannu. Entirely unirrigated the soil of its 65,900 cultivated acres is very sandy. This produces with average rainfall excellent crops of wheat and gram. A feature of the circle is the wonderfully good *bandiza* cultivation fertilized by the immense quantity of water which immediately after rain drains through the Thal from the Chauntra and Lawaghar hills. The zamindars live for the most part in small detached hamlets near their fields, but for revenue purposes the circle is divided into five huge estates and four hamlets. One great difficulty the people have to contend with is the absence of drinking water. During the hot weather the women of the hamlets out in the plain spend most of the nights in fetching water on donkeys from holes dug in the *nullahs* under the hills.

The *Lawaghar* (=high hill) Circle comprises the country occupied by the two lofty ranges—the Shinghar and the Surghar—which separate the Khattak territory from the Isa Khel Tahsil of the Mianwáli District in the Punjáb. The greater part of the tract is nothing but an intricate mass of ravines and precipices. There are 17 estates, but in several of them the agriculture is almost nominal, the people living by grazing goats and sheep and cutting wood for the alum mines at Chapri south of the Chicháli Pass. The cultivated area of 9,964 acres (183 acres irrigated from small springs), represents only 9 per cent. of the total area of the circle.

25. A uniform classification of soils for assessment purposes has now been adopted throughout the district.

Classes of soil.

At the previous settlement of the Kohát and Hangu Tahsils lands irrigated from wells, springs and streams were kept separate, and distinctions were made between double and single cropped land, but all unirrigated land except the small *sailáb* and *tálábi* area was assessed at the same rate in the different circles. In the Bárak Settlement Mr. Tucker adopted different rates for unirrigated lands according to the amount of assistance they received from embankments or drainage, as well as for the different irrigated soils. In the Khattak Settlement rates were framed for only two classes of soil—irrigated and unirrigated. The present classification, noted below, was sanctioned by the Settlement Commissioner in his letter No. 1143, dated 8th June 1900, and was approved of by the Financial Commissioner in his Senior Secretary's letter No. 815, dated 26th *idem*.

The natural soils vary a good deal. In the low-lying irrigated tracts along the bottom of the main valleys in Kohát and Hangu the soil is generally a good loam, fertile and easily worked and generally well manured. The open unirrigated land of the Miranzai valley is a rich dark coloured loam, yielding good summer crops in years of seasonable rainfall. In the Toi Circle and the northern circles in Teri the predominant soil is a hardish clay; often of a brick red colour, which requires a lot of ploughing and a good deal of rain. Given the rain and a proper amount of husbandry it will produce excellent crops, chiefly, as

one would expect in the *kharif* harvest. Further south we have a light friable soil in the Nari-Chauntra and Shakardarra Circles merging on the one side into the sandy soil of the Thal plain, and on the other into the stony soil of the Lawaghar and Kohi hills.

The soils recognised by the people are *rakkmina* (lit. silky) or loam; *matta* or *mattina* = clay; *sangair* or full of stones; and *shigga*, a soil in which sand predominates.

These distinctions, however, are to be found in tracts and not in individual fields. In most places one knows, after having been round the district once or twice, where one will find red clay or a poor soil covered with stones, but there is a vast difference in the fertility of a field dependent on the rain which actually falls upon it, and one with similar soil on to which drainage from a *nullah* or the neighbouring hill side has been diverted. Differences in facilities for irrigation and drainage are moreover easily ascertainable, whereas minute differences in soils are often a matter of opinion and cannot be readily checked. Every effort was made to obtain a correct classification of the cultivation according to the table below. The patwari when he found at measurement that the soil of a field should be altered from that already recorded in his papers, had to bring the matter to notice; the kanungo then checked the alteration which was only given effect to after it had been attested by a Naib Tahsildar. Uniformity in classification was thus secured as far as possible. In some cases I found a tendency to push up the classification unduly, but on the whole I hope that the results fairly represent the facts.

The terms used in the classification and their definitions are as follows:—

CULTIVATED.

A.—Irrigated lands.

1. Cháhi ... ...	... Land irrigated from wells.
2. Chashmai dofashi	... } Land irrigated from perennial springs
3. „ ekfasli	... } and producing 6 or more crops out of 8.
4. Abi dofashi	... } and producing less than 6 crops out of 8.
5. „ ekfasli	... } Land irrigated from Tois (streams)
	... } and producing 6 or more crops out of 8.
	... } and producing less than 6 crops out of 8.

B.—Unirrigated lands.

6. Sailáb ... ...	... Land flooded by overflow of Toi water, or kept permanently moist by percolation from springs or <i>jhils</i> .
7. Tálabi ... ...	... Land occasionally watered from tanks dependent on rainfall.
8. Bandiza ... ...	... Embanked land receiving occasional irrigation from ravines or hill torrents.
9. Dagoba ... ...	... Embanked land assisted by drainage of rain water from higher ground.
10. Báráni ... ...	... All land dependent on its own rainfall only.

UNCULTIVATED.

11. Banjar jadid ...	... Land producing nothing for four harvests successively and having no fruit trees growing on it.
12. „ kadim ...	... Land producing nothing for four years and having no fruit trees growing on it.
13. Ghair mumkin ...	... Unculturable land of all kinds.

26. The next step was to ascertain the productive capacity of the land.

Area of crops.

It is not the cultivated or the culturable area that pays the land revenue but the harvests which the people succeed in reaping. Having discovered the extent of the harvests it was necessary to determine the probable outturn of the various crops grown, to convert this outturn into its money value at fair prices, and, by applying the rates of rent found to obtain generally, to come finally to some conclusion as to the presumptive profits of the zamindars.

In a district where less than one-eighth of the cultivated area is irrigated, and where the rainfall, averaging only about 20 inches in the year, is extremely variable in its effect, the results of the agricultural operations for any one year would of course be a very unsafe guide. Fortunately the statistics compiled

after every harvest based on a field-to-field inspection of the crops by the patwaris under the supervision of their revenue officers now afford material to which the previous Settlement Officers had not access. In my assessment proposals I have assumed that the average harvested area of the five years immediately preceding the re-assessment gave a safe and fair estimate of the outturn which may ordinarily be expected from the land. In the Kohat and Hangn Tahsils I had seen five, and in Teri seven out of the ten harvests on which this estimate is based. The main factor in determining the pitch of the new assessment has been the results brought out by the crop inspections of the years given in the table below—

YEAR.	AREA OF MATURED CROPS (IN ACRES).				Total area sown.	Percentage of area sown that failed.
	Kohat.	Hangn.	Teri.	District.		
1897-98 ...	57,504	30,514	164,374	252,392	290,632	13.1
1898-99 ...	42,309	33,223	121,376	196,908	259,283	24.0
1899-1900 ...	38,519	27,101	111,397	177,017	256,195	30.9
1900-01 ...	60,293	36,614	150,893	247,800	299,103	17.1
1901-02 ...	47,241	27,597	138,511	213,349	274,952	22.4
1902-03 ...	52,519	31,460	141,964	225,943	280,432	19.4
Five years' average ...	49,173	31,010	132,828	213,011	272,383	21.8
1903-04 ...	60,533	34,252	155,575	250,360	297,782	16.0
1904-05 ...	68,211	39,533	168,446	271,190	314,454	13.7

NOTE.—Figures in antique type are not included in the calculation of averages.

According to this estimate, therefore, it is expected that during the currency of the new settlement out of the total cultivated area of 293,675 acres in the district, excluding the Samána, the area annually sown will not fall below 272,400 acres, and that the area of crops matured will average not less than 213,000 acres. Allowance is being made for failure of crops amounting to nearly 22 per cent. of the sown area. In the Kohat and Hangn Tahsils the averages were worked out for the five years 1897-98 to 1901-02, and in Teri for the five years 1898-99 to 1902-03. In the former cycle the rainfall was very deficient in two years, and in the latter in three years out of the five. The average harvested area is therefore probably somewhat below the normal.

The average area of matured crops in the *kharif* harvest is 100,500 acres and in the *rabi* harvest 112,500 acres. Taking these figures as each equal to 100, the character of the harvests on which the assessments are based may be depicted very simply as percentages:—

HARVEST.	1897-98 (Kohat and Hangn).	1898-99.	1899-1900.	1900-01.	1901-02.	1902-03 Teri only.
Kharif ...	114	87	75	108	117	114
Rabi ...	Good.	Poor.	Bad.	Fair.	Good.	Good.
	104	97	90	124	86	102
	Fair.	Fair.	Poor.	Very good.	Poor.	Fair.

Thus out of the twelve harvests one was very good, three good, four fair, three poor and one bad. The balance is a very even one.

The returns quoted in the table above for the years 1903-04 and 1904-05 show that the new settlement has had an excellent start owing to the good rainfall of the past two winters. Adopting the same denominators as above these four harvests are represented by—

Kharif 1903	...	...	...	...	...	...	105
Rabi 1904	...	...	...	...	...	...	129
Kharif 1904	...	...	...	...	...	...	106
Rabi 1905	...	...	...	...	...	...	146

The last was quite an exceptionally successful harvest. On the other hand the returns for Kharif 1905, which have come in while this report was being written, give the value of the harvest as only 77, i.e., almost as bad as Kharif 1899.

27. The following table shows the chief crops grown in the district, the average area matured under each, and the proportion of the total harvested area which each crop occupies. The figures are taken from the Assessment Reports :—

CROP.	Average area successfully harvested.	PERCENTAGE OF TOTAL MATURED AREA OCCUPIED BY EACH CROP.			
		District.	Tahsil Kohat.	Tahsil Hangu.	Tahsil Teri.
	Acres.				
Rice	2,575	1·2	2·7	4·0	...
Maize	17,171	8·1	13·9	30·4	7
Jowar	5,863	2·8	1·3	·1	3·9
Bajra	57,746	27·1	24·8	16·0	30·6
Kaagri	1,645	0·8	...	2·8	·3
Moth	5,059	2·4	·2	...	3·7
Mung	4,967	2·3	1·8	5·9	1·7
Til	1,028	0·5	·5	1·8	·2
Cotton	2,761	1·3	1·5	3·4	7
Wheat	85,075	39·9	39·3	31·7	42·1
Barley	6,035	2·8	6·9	1·5	1·7
Gram	16,815	7·9	1·3	...	12·2
Taramira	1,674	·8	1·7	...	·6
Other miscellaneous crops	4,589	2·1	4·1	1·3	1·6
Total	213,003	100·0	100·0	100·0	100·0
Percentage of crops grown in the kharif harvest	...	47·3	47·8	66·0	42·5
Do. do. rabi do. ...		62·7	52·2	34·0	57·5

At previous settlements there were no reliable crop statistics for the Settlement Officers to use as guides. A detailed comparison with their estimates would therefore serve no useful purpose. Nor can it be said whether there is any tendency for one set of crops to replace others; though the opinion may safely be hazarded that the conservatism of the Pathan zamindar has precluded any great change in this respect. Even the figures given above contain mere estimates for the Bar Miranzai Circle which has now been measured for the first time. Excluding this circle for the moment, as no estimate of the harvested area was made for it in the summary settlement, it may be noted that in the remainder of the Kohát and Hangu Tahsils the area of matured crops was estimated at 91,000 acres as against the estimate now made of 68,000 acres, while in Teri the respective estimates were 155,500 acres and 133,000 acres. The difference in the estimates for the whole district (still excluding Bar Miranzai) is 18·5 per cent. This is more than covered by the allowance of nearly 22 per cent. for crop failures. So that we may say roughly that we have now this advantage over those responsible for the previous settlements, that while they had to rely on the area sown we now know more or less accurately the area actually cropped. The distinction is important when we come to compare the different rates of yield adopted then and now.

Wheat and *bájra* are the two great staples of the district, occupying between them 67 per cent. of the cropped area. Other important crops are maize in the Hangu and Kohát Tahsils and gram in Teri. Barley and rice are grown in the irrigated tracts in Kohát and Hangu. Cotton is an unimportant crop, and as cultivated in this district gives a poor outturn. The other crops hardly require notice.

The winter harvest is the more important of the two except in the Hangu Tahsil where unirrigated maize can be grown.

28. In order to ascertain the outturn given by the land, crop experiments were conducted throughout the district during the nine harvests, Rabi 1900 to Rabi 1904. The instructions followed in making these experiments were those contained in the Settlement Commissioner's Circular No. 226 S., dated 4th March 1898 (Appendix II B. of the Settlement Manual). Each harvest all the Assistant Collectors employed in the district were allotted a certain number of experiments, each officer being held responsible for the selection of representative plots of land, and for the correctness of the results. Experiments were also made by the Settlement Officer and the Extra Assistant Settlement Officer. When the results were collated they were scrutinized by the Settle-

ment Officer, and experiments which were obviously untrustworthy, or which for special reasons could not be regarded as representative, were cancelled. But this power of exclusion was used sparingly, it being felt that the larger the area reported on, and the more varied the results, the greater was the likelihood of a true average being obtained. Altogether 487 experiments were carried out in this way on 928½ acres for the 14 principal crops on 181 classes of soil in the 11 different assessment circles. Every effort was made to select large plots of land, but in irrigated land there was considerable difficulty in doing so owing to the minuteness of the subdivision of the holdings and the fields. The final results obtained from these experiments are given in Statement No. 2 attached to this report.

Attention was of course chiefly directed to the two main crops wheat and *bajra*, and the results obtained for the district as a whole are very instructive, in view of the substantial areas over which the experiments were conducted :—

Crops.	Soil.	Total area observed.	Outturn of grain per acre.	Outturn of straw per acre.
WHEAT	Irrigated	Acres.	Maunds.	Maunds.
	Unirrigated	126½	10½	13
BAJRA	Irrigated	355½	6	7½
	Unirrigated	11	12½	37½
		166	6	12

Kohát is not one of the districts included in the scheme prescribed by the Government of India for continuous experiments on plots of one-fortieth of an acre.

Besides the official experiments I endeavoured to enlist the services of the wealthier and more intelligent Khans and Maliks by asking them to carry out experiments in or near their villages. The selection of the plots was left to them assisted by the kanungos. The idea was appreciated and was to some extent successful. Men actually petitioned to know why they had been left out though quite as important and intelligent and anxious to be useful as men selected. Some valuable results were obtained, details of which will be found in Appendix A attached to the Assessment Reports.

No reliable account books of big zamindars could be procured. A few books were examined, but the entries did not appear to be worth the trouble of tabulating. Instead of this the files of suits brought during the last eight years for the recovery of rent were examined, and the outturns at which decrees had been given or judgment confessed were abstracted. These also are given in the above mentioned appendix.

29. With the help of these guides the outturn of each crop on the different soils in each assessment circle was determined. The similar

estimates made at the previous settlements and in neighbouring talukas were also referred to, some of the former not being however very useful as they dealt with the sown not the matured area. The outturns now assumed are taken to be fair averages for the average area returned as successfully cropped in the five years preceding the assessment. The results depend in the last resort on the accuracy with which the patwaris have appraised the crops of each field during their harvest inspections. The tendency of the patwari is perhaps to allow hardly enough for crop failures. On the other hand a field with an exceptionally good crop is only recorded as having borne a full one. It is not unfair to assume that these two considerations counterbalance one another. As the education and ability of the patwaris improve and their supervision becomes more thorough, the returns will become more reliable.

By applying these outturns to the average of crops produce estimates of the total yield of an average harvest were framed. It will be sufficient to enumerate here a few of the more important crops. It should, however, be understood that from the nature of the proceedings it is probable that the differences assumed between the separate soils and circles are more abrupt than is actually the case.

The outturns assumed vary from 12 and 13 maunds on spring irrigated *defasli* land to 7 maunds on *ekfash* land watered from the Tari. On

unirrigated soils the *bandiza* outturn has been put at 8 or 9 maunds, the *dagoba* at 5, 6 and 7 maunds in different circles, and the pure *barani* varies from 5 maunds in the Darra Circle to 3 maunds in Kohi, Shakardarra and Lawaghar.

Barley is chiefly grown on the *ekfasli* land in the Toi Circle, where the Barley. outturn has been put at 11 maunds on spring and $10\frac{1}{2}$ maunds on Toi irrigated land.

The outturn taken on the *barani* land in the Thal Circle where most of Gram. this crop is grown is 5 maunds an acre.

Rice is only grown in Hangu and the China and Toi Circles of Kohat, and Rice. the outturn varies from 12 to 18 maunds according to the water supply.

Maize is almost entirely grown on irrigated *dagoba* land in the same circles as rice. The outturn is between 14 and 16 maunds.

Bajra is an unirrigated crop. The normal outturn has been put at 8 maunds on *bandiza*, 6 maunds on *dagoba* and 4 maunds on *barani* lands, the rates being slightly higher in the north of the district with its better rainfall, and slightly lower in the more exposed southern portion.

Cotton does not do well in this district. The outturn has been taken Cotton. as 3 maunds on irrigated *ekfasli* land, and 2 to 3 maunds on *dagoba* soils, but the area under this crop is very small.

It is interesting to compare in the case of the two principal crops the average outturn brought out by applying the different rates thought suitable for the soils, with the average of the experiments quoted in the last paragraph. On the 16,000 acres of irrigated wheat that are grown in the whole district, the outturns assumed in the produce estimate average just under 10 maunds, and on the 69,000 acres of unirrigated wheat $5\frac{2}{5}$ maunds. For *bajra* the figures are 11 maunds on 1,270 irrigated acres and $5\frac{7}{10}$ maunds on 56,480 unirrigated acres. These results seem well justified by the crop experiments.

To show the immense difference between the statistics available at the previous settlement and those we are able now to work with, the following figures for the wheat and *bajra* crops may be quoted:—

CROPS.	Soil.	Detail of area and outturn.	KOHAT AND KUZ MIRAN-ZAI.		BARAK CIRCLES.		KHATTAK CIRCLES.		DISTRICT EXCLUDING BAR MIRAN-ZAI.	
			Last Settlement.	Now.	Last Settlement.	Now.	Last Settlement.	Now.	Last Settlement.	Now.
WHEAT.	Irrigated ...	Area under crop (acres).	15,602	12,378	...	380	447	497	16,049	13,255
		Total outturn (maunds).	131,935	120,902	...	4,415	3,426	3,969	135,330	129,285
		Outturn per acre (maunds).	8 $\frac{1}{2}$	9 $\frac{1}{2}$	...	11 $\frac{1}{2}$	7 $\frac{1}{2}$	8	8 $\frac{1}{2}$	9 $\frac{1}{2}$
WHEAT.	Unirrigated	Area under crop (acres).	17,816	12,695	47,000	36,824	18,721	18,217	83,537	67,736
		Total outturn (maunds).	39,168	70,260	267,000	185,039	127,271	110,363	433,437	365,602
		Outturn per acre (maunds).	2	5 $\frac{1}{2}$	53 $\frac{1}{2}$	5	6	6	5	5 $\frac{1}{2}$
BAJRA.	Irrigated ...	Area under crop (acres).	671	638	...	389	361	205	1,032	1,232
		Total outturn (maunds).	2,154	6,380	...	5,194	3,510	2,024	5,664	13,598
		Outturn per acre (maunds).	3 $\frac{1}{2}$	10	...	13 $\frac{1}{2}$	9 $\frac{1}{2}$	10	5 $\frac{1}{2}$	11
BAJRA.	Unirrigated	Area under crop (acres).	22,470	15,238	40,000	17,724	31,681	22,292	94,101	55,254
		Total outturn (maunds).	37,334	94,522	146,500	85,758	228,052	187,242	406,886	317,522
		Outturn per acre (maunds).	1 $\frac{1}{2}$	6 $\frac{1}{2}$	3 $\frac{1}{2}$	4 $\frac{1}{2}$	7	6 $\frac{1}{2}$	4 $\frac{1}{2}$	5

It is not suggested for a moment that the productive capacity of the land has increased to the extent that some of these figures would at first sight indicate. In Kohát and Kuz Miranzai at last settlement the irrigated wheat out-turn was apparently the only one fixed by the ordinary processes. The produce of wheat on *báráni* land was assumed at one-fourth of the estimated produce on *ábi* land, except in Koh-i-Dáman (part of Kuz Miranzai) where it was taken as one-third. The yields of *bájra* and maize were intentionally fixed by Captain Hastings lower than they really were, because these crops are so largely used by the people as food. In the Bárak Circles Mr. Tucker assumed all-round rates for both irrigated and unirrigated land, not in itself a matter of much importance, seeing how small the irrigated area is. He reduced considerably the area returned as harvested in the two very favourable years during which his observations were conducted, but even so the total out-turns were much exaggerated. In the Khattak circles the area of the unirrigated *bájra* crop was greatly over-estimated and Captain Leigh adopted higher rates of outturn in the case of both wheat and *bájra* than those which have now been accepted.

For the district as a whole (still excluding Bar Miranzai and of course the Samána) the total annual outturn of these two main staples has now been estimated to be 494,947 maunds of wheat, and 331,120 maunds of *bájra* against the previous estimates of 568,797 maunds and 412,550 maunds, respectively. It is not claimed that the new estimates are absolutely accurate, but it can fairly be said that they afford a much better approximation to the truth than the rougher estimates based on the very meagre data formerly available. The figures at least show that no attempt has been made to force up this all-important item in the calculation of the agricultural assets of the people.

30. Having thus arrived at the total produce of the land, it was necessary to determine fair prices for the conversion of the crops into

for the conversion of the crops into money value. The prices which obtained at harvest time during the twenty-five years preceding this Settlement have already been given in paragraph 14. These, however, were the prices of the Kohút market as recorded in the *Government Gazette*.

The villager selling his grain to the *bannia* does not get the full price, and whether he sells it in his village or brings it to the bazar himself, the cost of transport must be allowed for. The subject was fully discussed in the Preliminary Report submitted in 1900. The Financial Commissioner in his Secretary's letter No. 551, dated 26th January 1901, sanctioned a deduction of 15 per cent. from the average prices of the last twenty ordinary years to allow for carriage to the main markets, and for the probability that the construction of the railway would keep prices at a lower general level than heretofore.

The commutation prices thus adopted for the purposes of this Settlement are:—

CROP.	COMMUTATION PRICES.		CROP.	COMMUTATION PRICES.	
	In rupees per maund.	In sers per rapoe.		In rupees per maund.	In sers per rapoe.
	Rs. a.			Rs. a.	
Wheat	1 12	23	Bájra ...	1 7	28
Barley	1 1	38	Kangni ...	1 11	24
Gram	8	27	Moth ...	1 11	24
Táramira	2 11	15	Mung ...	2 0	20
Rico (unhusked) ...	1 5	30	Til ...	4 0	10
Maize	1 8	27	Cotton ...	3 5	12
Jowár	1 6	29	...	...	...

At the previous Settlements different sets of prices were naturally assumed for each tract according to the facts and theories appropriate at the time. These prices are given in detail in the Assessment Reports and need not be repeated here. On the present occasion one set of prices has been adopted for the whole district.

In passing orders on the Assessment Reports the Chief Commissioner was of opinion that the deduction of 15 per cent. from actual prices was too liberal an allowance for the difference between village and market prices in the Kohat and Hangu tahsils, now that a railway and a metalled road run through their whole length, and that the commutation prices for these tahsils might well have been raised. For Teri they were considered fair and certainly not unduly low, a conclusion which gains support from the fact that the price of wheat in Bannu is consistently lower than at Kobát. Somewhat more than half the produce of the district is grown in the Teri Tahsil. The deduction may therefore be taken as a fair all-round average for the district as a whole.

The value of the staples enumerated in paragraph 14 at the commutation prices assumed at the previous Settlements and now is as follows:—

	Kohát.	Hangu.	Teri.	District.
	Rs.	Rs.	Rs.	Rs.
At the previously assumed prices	3,32,653	2,02,421	6,76,128	12,11,235
At the prices now assumed	5,52,058	3,91,905	10,64,519	20,08,512

The commutation prices now adopted are higher than those assumed by the previous Settlement officers by 66 per cent. in Kohát, by 98 per cent. in Hangu, by 75 per cent. in Bárak and by 38 per cent. in Khattak, and by nearly 66 per cent. for the whole district. That is to say, the prices used in my assessment calculations are very much nearer the prices known to have been ruling in the years prior to assessment than the prices on which the former assessments were based. This is justified by the much more accurate information we now possess as to the harvested area and the average outturn of the crops, as well as the range of actual prices.

The value of the gross produce of the district at the actual average harvest prices and at the commutation prices is:—

Tahsil.	At actual prices.		At assumed prices.	
	Rs.	Rs.	Rs.	Rs.
Kohát ...	8,00,700		6,80,560	
Hangu...	5,07,500		4,31,430	
Teri ...	13,16,800		11,19,210	
District	26,25,000		22,31,200	

Later on it will be seen what proportion of these sums has been taken as the Government demand in land revenue.

31. The Kohát landlord almost invariably takes his rent in the shape of a fixed share of the produce, and this share is almost equally invariably fixed by custom and not by competition. Cash rents are practically unknown, the returns showing only 1,561 acres as nominally paying cash rents; the greater part of this infinitesimal area does not pay a true rent, but merely an arbitrarily fixed sum representing the somewhat shadowy proprietary rights of the *daftaris* of a parent village over land cultivated by settlers in a hamlet.

The customary rates of *latai* rent are on irrigated land one-half and one-third, and on unirrigated land one-fourth and one-fifth. The former are in each case the rates for fair average land, the lower rates betoken inferiority of some sort in the soil or the supply of water. Departures from these rates are found in special localities, or are accompanied by special terms as to the provision of seed or manure by the landlord and so forth.

A very fair indication as to the respective agricultural capabilities of the different assessment circles is afforded by a comparison of the average rents in kind obtaining in each. Details will be found in the appendices attached to the assessment reports. Here the arithmetical averages only need be given.

Average rents in kind now obtaining.

Circle.	Irrigated land.	Unirrigated land.	Circle.	Irrigated land.	Unirrigated land.
China ... ... ...	.50	.30	Seni-Khwarram ...	.42	.23
Toi ... ... ...	.50	.25	Darra ... ...	.43	.25
Kohi ... ... ...	.50	.20	Nari-Chauntra ...	.34	.28
Shakardarra ... ...	.50	.37	Thal ... ...	.43	.28
Kuz Miranzai ... ...	.50	.24	Lawaghar ... ...	.36	.30
Bar Miranzai ... ...	.46	.30	Samana ... ...	...	...

The only irrigated tracts of importance are in the China, Toi and the two Miranzai circles where it will be seen the rent rate is one-half. The highest unirrigated rent is in Shakardarra where most of the land pays one-third and the good *bandiza* lands actually pay one-half. The poor stony land in the Kohi Circle only pays one-fifth. But the bulk of the unirrigated land in the Koháti and Hangu tahsils pays one-fourth. The land in the Seni portion of the Seni-Khwarram Circle pays one-fourth and in the Khwarram portion one-fifth. Most of the land in the Darra Circle also pays one-fifth, the average rent being raised by good *bári* and *bandiza* lands paying one-half and one-third. The usual rent in Nari-Chauntra is one-fourth though a good deal of land pays one-third. In the Thal Circle alone has there been any marked change in the rent rate since last Settlement for over the greater portion of the land the rent has risen from one-fifth to one-fourth and good *bandiza* lands pay one-third. The apparently high rate in Lawaghar is due to the scarcity of land fit for cultivation not to its unusual excellence.

We have seen in paragraph 17 that 57.3 per cent. of the cultivation is in the hands of the owners themselves. The theory of assessment by the standard of the half-net-assets of the landlords proceeds on the assumption that if they set out their self-cultivated lands to tenants-at-will they would receive as rent the share which tenants generally pay on lands already so let. In this district, with its customary rates of *batai-rent*, this assumption is a particularly safe one to make.

32. The system of feeding the cattle in this district is simple. During the late autumn and winter the fodder

Deductions for fodder. consists of *tanda*, the straw of *bájra*, and *jowár* (and sometimes maize) chopped up fine and mixed with any *missa bhusa* (moth and mung straw) that may be available. In irrigated villages *shaftal* or clover is grown for fodder between the maize and the wheat crops. In the spring the cattle graze on the hillsides, the grass in ordinary years sufficing for their needs. In the summer and early autumn *bhusa* the straw of wheat and barley furnishes, as a rule, along with the grass produced by the summer rains enough food for the animals. In dry years some of the *jowár*, *bájra*, barley, and even wheat has to be cut green for fodder. But the people generally trust to the grazing on the hills to which the cattle are driven out each morning when not at work in the fields.

It will thus be seen that with the exception of a little clover on irrigated land no exclusively fodder crops are grown. The crop returns show less than 2,000 acres of crops used as fodder in the whole district. This is probably an under-estimate as I am inclined to think sufficient allowance has not been made for green crops not matured to the stage of bearing grain but cut for the cattle. Clover is generally sold and brings in a considerable profit. The remainder of the fodder crop area, which is chiefly *jowár* used as *charri*, has been deducted from the produce estimate on which the landlord's profits are calculated.

As a natural consequence of this very illiberal system of feeding them, the cattle are extremely poor and stunted. The people may perhaps in time come to realise that better treatment of their cows and bullocks would be

profitable. At present they are content to abide by their instinct as graziers inherited from their ancestors, and to look on the poor results obtained as inevitable.

The custom as to the division of the straw between landlord and tenant is that on irrigated lands the former is entitled to the same share as he obtains from the grain. On unirrigated land the tenant keeps all the straw. The profits from straw are no doubt considerable, as there is a great demand for *bhusa* in the cantonments. But I have not attempted to include these in my estimate of the net assets, preferring to set them off against the probable underestimate of crops cut for fodder; on irrigated land against the cost of keeping up the water-courses; and on land watered from wells against the expense of maintaining the well and providing the buffalo which is usually the property of the landlord who on wells takes all the straw. Elaborate calculations of these various items seemed unnecessary seeing that most of the cultivation is unirrigated, and that, as it is, the half net assets estimate gives a higher revenue demand than can be assessed on the people.

33. The system of agriculture being so simple the number of menials employed by the people is very small.

Menials' dues.

In most villages the only menial is

the *kárigar*, who combines the duties of blacksmith and carpenter, the "hot" and the "cold" work as it is put locally—a distinction drawn from the blacksmith's use of fire. In more advanced villages the *lohár* and *tarkhán* are different persons. Some of the larger irrigated villages employ an unofficial *mirdab* to look after the distribution of the water, well-to-do zamindars employ a *kakha* (or crop-watcher) and a *musalli* (for winnowing). Khans maintain *fanjdars* to watch the cutting and threshing of their crops and *dharwais* to appraise and weigh the grain. In Sámilzai and Miranzai a Sayad is sometimes employed as *galaiband*, to go round the fields repeating suitable verses from the *Korán* to protect the crop from hail (*galai*); his payment depends on the success or failure of his incantations.

But the *kárigar* is the only person whose employment is sufficiently general to require notice in calculating the net rental of the landlords as a body. At last Settlement extensive deductions were made from the gross assets of each circle for menials' dues in Kohát, Hangu, and Bárak. The percentages thus deducted varied from 2 or 3 per cent. to 10 and 11 per cent. of the total produce. Further enquiry has shown that as a rule the *kárigar* is paid by the tenant after division of the produce with the landlord. His due is calculated by the plough, at rates varying from 10 sers to 20 sers of wheat and *bájra* and it is the owner of the plough who pays him. This was recognised in the Khattak Settlement. The big landlords often succeed in recovering from the tenants something towards the pay of their *dharwais*, &c. Payment of the *kárigar* by the tenant prevails throughout the Teri Tahsil. In Kohát and Hangu I found that in most of the circles only one-third or one-fourth of the villages paid their *kamins* out of the common heap. This is not the case in Shakudarra and Bar Miranzai, and in these two circles deductions amounting to 3½ per cent. and 2 per cent., respectively, have been made from the gross produce to allow for the *kárigar*'s due. Seeing how small this deduction is in circles where common payment by both landlord and tenant prevails I did not think it worth while to try and work out the fractional percentages, which should, strictly speaking, be deducted in the other circles. This would only be useful if we were fixing the assessment close to the half net assets estimate, which no one has suggested that we should do.

34. The result of all these calculations was to bring out the renting

Half net assets estimate.

capacity of the land to the owners at

Rs. 7,49,527. In its assessment in-

structions Government has limited its theoretical demand as land revenue to half this amount, or Rs. 3,74,760. This gives what is known as the half net assets

estimate of the new assessment. Its

		Rs.
Kohat	...	1,42,161
Hangu	...	82,317
Teri	...	1,50,281
District	...	<u>8,74,759</u>

distribution over the tahsils is shown in the margin. The estimate is 93 per cent. higher than the old revenue of the district as a whole, which was Rs. 1,93,918. The data on which this estimate is based were accepted by the authorities reviewing the Assessment

Reports. The problem which then remained to be decided was how far the revenue assessment could be raised in fairness to the people considering how low the pitch of the previous demand had been. As remarked by the Chief Commissioner in passing orders on the Kohat-Hangu Report, the local conditions bearing on the assessment, prices, communications, political considerations involved have been so completely revolutionised within the past twenty-five years that the old Settlement (in those two tahsils at least), is no longer even a guide, though the principles of assessment remain the same. But as a matter of practical politics we are now limited to a somewhat inconvenient extent by the amount the zamindars have been paying in the past, and this factor is in this district the most weighty consideration we have had to bear in mind in fixing the new assessment.

35. The rise in prices has been already stated to be the main justification of an increased assessment. A check on the half net assets estimate is therefore afforded by enhancing the assessment leviable at the revenue rates adopted at the previous Settlements on the present cultivation in the proportion that prices

	Rs.
Kohat	86,539
Hangu	44,078
Teri	83,110

have risen. If we simply apply the old revenue rates to the area now returned as cultivated we get an assessment of Rs. 2,13,727 as in

the margin. Adding the percentages by which prices have risen (see paragraph 14) we arrive at an estimate of Rs. 2,85,568.

	Rs.
Kohat	1,21,155
Hangu	63,914
Teri	1,00,499

The latter figure gives an increase of almost 50 per cent. on the old assessment; even the former gives an increase of nearly 12 per cent. and this in spite of the fact that cultivation has not increased. This is accounted for by the improvement in the better classes of irrigated soils. The enhancement thus brought out by the rise in prices is not nearly equal to that of the half net assets estimate. The main reason for this is that in the latter estimate the unirrigated land has now been classified in three soils, of which the two better varieties can bear a higher revenue than it was thought safe at the previous Settlements to impose on the unirrigated area as a whole. This guide is, therefore, not a true one for the new assessment. It has, however, been useful in directing attention to the over-assessment of the Seni-Khwarram Circle, and the *abi ek fasli* land in the Toi Circle.

Another check which can be applied is the one-sixth produce estimate.

	Rs.
Kohat	1,13,427
Hangu	71,905
Teri	1,86,535

The gross produce of the district has, at the commutation prices employed in the assessment calculations, a value of Rs. 22,31,200 (see paragraph 30),

and one-sixth of the sum amounts to Rs. 3,71,867 distributed as in the margin. This is not far off our half net assets estimate.

36. Working on these data I proposed an assessment of Rs. 1,07,150 in the Kohat Tahsil, of Rs 51,000 in the Hangu Tahsil and of Rs. 1,12,000 in

Teri, or a total sum of Rs. 2,70,150 for the district, with a progressive enhancement of an additional Rs. 4,000 to be imposed on the Bar Miranzai Circle after the lapse of five years. The assessment sanctioned by Government was Rs. 2,71,250, distributed over the circles as follows:—

TAHSIL.	Circle.	Revenue.	TAHSIL.	Circle.	Revenue.
KOHAT.	China	21,000	TERI.	Seni-Khwarram	22,400
	Toi	82,000		Darra	24,000
	Kohi	8,200		Nari Chauntra	28,800
	Shakardarra	4,250		Thal	30,400
	Total Kohat	1,10,450		Lawaghar	8,200
HANGU.	Kuz Miranzai	36,000		Total Teri	1,08,800
	Bar Miranzai	16,000			
	Total Hangu	52,000			

My proposed assessments were thus enhanced by Rs. 3,300 in Kohát—China Rs. 1,000, Toi Rs. 2,000 and Shakardarra Rs. 300—and by Rs. 1,000 in Hangu—Kuz Miranzai—while in Teri they were reduced by Rs. 3,200—Nari-Chauntra *plus* Rs. 1,600, Thal *minus* Rs. 4,000, and Lawaghar *minus* Rs. 800. In Bar Miranzai it was decided to impose Rs. 16,000 at once and to raise this to Rs. 20,000 after five years and to Rs. 24,000 after another five years. The final assessment of the district for the term of this Settlement was thus fixed at Rs. 2,79,250. At the same time liberal orders as to frontier remissions were passed which will be discussed later on.

The new revenue payable at once amounts to 72.4 per cent. and that finally payable to 74.5 per cent. of the half net assets estimate.

The increase on the old revenue, Rs. 1,93,918, is practically 40 per cent. now and will be 44 per cent. when the full progressive demand in Bar Miranzai falls due. It is in this circle of course that the heaviest increase has taken place, the old summary assessment being quite inadequate. But all the circles share to some extent in the enhancement except Seni-Khwarram which was found to be over-taxed. Its assessment was accordingly reduced by Rs. 1,600 from Rs. 24,000 to Rs. 22,400; this sufficed to give the people a measure of relief which they much needed.

37. It was decided that the assessment should be in the future as in the past a fixed one. The immense difficulties in the way of properly super-

Method of assessment.

vising in a hilly country like this any form of fluctuating assessment, were held to preclude the idea of attempting to introduce such a system. Moreover the notions and temperament of the Pathán population made it hopeless to expect them to agree willingly to anything but a fixed demand. In the Teri Tahsil the arguments in favour of a fixed assessment were even still stronger, as the reason which originally forced Government to intervene between the Khán and the Khattaks was the difficulty he experienced in realising his revenue under his old rough and ready system of fluctuating assessment. It was at the same time realised that in order to secure fixity and thus obviate the difficulties to the people and the State in the Kohát and Hangu tahsils and to the Khán in the Teri Tahsil, inevitable under a fluctuating system of assessment, the State and the Khán must be prepared to forego part of what they would be entitled to, if the demands were adjusted to the character of each harvest.

Considerations generally called political were not held to apply with any great force to the problem of assessment. In the Kohát and Hangu tahsils frontier remissions have been granted on a liberal scale to villages liable to be called upon for service on the border either in protecting themselves, their crops and their flocks, or in repelling and capturing raiders. The amount of these remissions and the conditions on which they are enjoyed are discussed in the next paragraph. In the Teri tahsil the task set was to hold the balance even between the Khán, whose family has been distinguished for unswerving loyalty, and his tribesmen a brave if somewhat unruly race. Beyond these points we had, as remarked by the Chief Commissioner in his review of the Kohát-Hangu Assessment Report, to consider only the general principle that our assessment should not be pitched so high as to cause discontent to a population which in proportion to its numbers probably contributes more men to the Native Army and Border Police than any other in Northern India, and which it should be our object to keep contented and prosperous.

In the minds of the people their contentment and prosperity are largely bound up with fixity of demand. This demand has been limited to less than three-fourths of the theoretical amount they might have been called upon to pay. The calculations by which this amount has been arrived at, have been described as cautious and from them the profits of the people from live-stock, sales of wood, grass, charcoal and dwarf-palm, have been omitted, though they have been taken into account in the distribution of the assessment over the individual villages. Therefore though the land revenue has been enhanced by 40 per cent. considerable leniency has been shown where it was due. There have been no signs so far that the new demand is regarded by the people generally as excessive; in fact such symptoms as have been observed point quite the other way.

38. The conditions governing the assessment of villages actually on the border are somewhat exceptional.
Frontier remissions.

In 1870 when the first Regular Settlement of the Peshawar District was undertaken, the Punjab Government* approved of the principle that it was

*Letter No. 755, dated 30th November 1870.
desirable to grant specially light assessments to villages on or near the confines of British Territory. Two reasons were given,—first to encourage the settlement of members of border clans within our territory, and secondly because the residents of our border villages were expected to aid in the protection of life and property from raids and to act as militia levies in the case of hostilities from independent clans. In order that the recipients might know the reasons why and the services for which the boon of favourable assessment was granted, the Settlement Officer was instructed to assess each village in the first instance at full rates, and to record the amount thus arrived at, and then to make a reduction of a percentage of the revenue on the distinct understanding that the concession was granted in consideration of the performance of special duties and might be withdrawn in whole or in part should those duties be neglected or insufficiently performed.

Captain Hastings was instructed to apply these principles in the Kohát-Hangu Settlement. The remissions thus granted and finally sanctioned in the Punjab Government letter No. 1358, dated 11th December 1878, amounted to Rs. 17,000 out of a total revenue of Rs. 1,08,430. At the present Settlement, as in the Revised Settlement of Peshawar, it was decided to maintain this system of granting remissions to frontier villages and to tribes and families requiring special consideration in connection with frontier administration. Great changes have, however, taken place in the condition of the border during the last twenty-five years. The improvement of communications and of the frontier administration generally have rendered the outlying villages more secure and lessened the burden of self-defence. But the Chief Commissioner pointed out that apart from border service one of the main reasons for frontier remissions is the heavy expense to which villages are put in entertaining the numerous trans-border men who pass through them, an expense which is practically forced on them by Pathán rules of hospitality as well as by the expediency of keeping on good terms with their neighbours. Intercourse of this nature tends to become greater and not less and is partly the result of our own policy.

In the Kohát and Hangu tahsils the Chief Commissioner sanctioned the grant of frontier remissions up to a sum of Rs. 15,650 out of the initial demand of Rs. 1,62,450. In the Teri tahsil my proposal to grant a few remissions on the Waziri and Jawakki borders was not agreed to, as the necessity for such remissions had not increased since last Settlement when none were given. It was held to be sufficient to show consideration to border villages by leniency of assessment, as had been done in the Darra Circle in the Khattak Settlement, without the grant of formal frontier remissions.

Proposals regarding the new remissions in Kohát and Hangu were submitted after consultation with the Deputy Commissioner and the Commandants of the Border and District Police, with my letter No. 359, dated 2nd December 1903, and were sanctioned in the Revenue Commissioner's letter No. 40 G., dated 7th January 1904. The remissions finally granted amount to Rs. 15,635 out of a revenue of Rs. 1,61,860 in these two tahsils, *i. e.*, a little less than 10 per cent. Details by circles will be found in paragraph 43.

39. In reviewing the Kohát-Hangu Assessment Report, Mr. Wilson, Settlement Commissioner of the Punjab, drew attention to the fact that though the increase in the revenue could be fully justified on many grounds and though the total burden of the assessment could be much more fairly distributed than formerly, the increase would at the same time be very great on many villages and holdings. Looking to paragraphs 33 and 34 of the recently published Resolution No. 1-50-2, dated 16th January 1902, on the Land Revenue Policy of the Indian Government, and to the small area of many of the holdings, which meant that many families had only a narrow margin of profit from which to pay an enhanced demand, he thought that the effect of the increase

should be diminished by making the assessment progressive. He proposed that in any village in which after allowing for frontier remissions, the enhancement of the revenue actually payable by the landowners to Government or to assignees of land revenue exceeded 40 per cent., half the enhancement or some similar sum should be deferred for a period of three years to give the people time to adjust their expenditure to the new demand. This proposal was approved of by the Chief Commissioner for the China, Toi, and Kuz Miranzai Circles subject to a limit of Rs. 10,000, and in Teri also sanction was accorded to the postponement of a sum of Rs. 5,000 in the Thal Circle in a similar manner. I was authorized to defer part of the enhancement in any case which I considered the imposition of the full demand at once would straiten the people. When distributing the revenue over the villages I found a few estates in the Kobi and Darra Circles to which it was desirable to extend this system of deferred assessments because of the large increase in the revenue demand. In the end the realization of a sum of Rs. 11,465 was deferred in 42 villages in the Kohát and Hangu Tahsils from Kharif 1903 to Kharif 1906 and of Rs. 5,891 in nine villages in the Darra and Thal Circles of Teri from Kharif 1904 to Kharif 1907. In all these villages the full final assessment was announced to the people and they were at the same time informed that in consideration of the large enhancement on their old payments a certain sum calculated at so many annas in the rupee of the full demand would be temporarily remitted for three years. The full revenue has thus been distributed over the holdings, and the collection of the amount deferred at the end of this period will therefore be automatic. Should, however, the first harvest in which deferred enhancement becomes due prove a poor one, the Deputy Commissioner will, it is hoped, obtain the sanction of the Revenue Commissioner to a further postponement for another year as indicated by Mr. Wilson.

In the Ear Miranzai Circle a different system was adopted. Here the old revenue was only Rs. 7,318, of which after deducting frontier remissions Rs. 6,249 only were payable. The proposals set forward in the Assessment Report were that the new *jama* should be Rs. 20,000, of which one-fourth should be granted in frontier remissions, and that the realization of one-fifth of the remainder should be deferred for five years, making the recoverable new assessment Rs. 12,000. The orders of Government were that the revenue should be at once raised to Rs. 16,000 to be enhanced to Rs. 20,000 after five years, and to Rs. 24,000 after a further period of five years, less one-fifth frontier remission in each case. Taking the previous light assessment into account and also the many reasons which justify frontier remissions and liberal treatment in this circle, the Chief Commissioner thought that the revenue should be enhanced at least to the above extent to establish the rights of Government. Even so the initial demand is less than one-half and the final demand little over two-thirds of the half net assets estimate and these proportions are still further reduced by the liberal frontier remissions. In announcing the village assessments I told the people what their revenue and remissions were to be from Kharif 1903, and also what the progressive enhancements to be taken from Kharif 1908 and Kharif 1913 would amount to. But owing to the reasonable expectation, in which they shared, that a considerable extension of cultivation is likely, it was left open to the people to ask for a fresh *bāchh* or internal distribution of the revenue on the area found to be cultivated when each of the enhancements become due. This *bāchh* will be carried out under the orders of the Deputy Commissioner and suitable arrangements should be made in good time for a special attestation of the records and the preparation of the necessary papers should the people express a desire to revise the present distribution.

40. The wells in this district are of a poor type. They are small and shallow being sunk as a rule on the bank or in the bed of a *nullah*.
 Treatment of wells.
 Their depth is between 20 and 30 feet and they contain about 3 to 5 feet of water. The cylinder is never made of masonry, the nearest approach to permanence being afforded by lining the walls with large stones embedded in mud. Such wells are called *katcha pakka*. A few small trees are planted round the well and a vine is trained over the wood work on the top; occasionally a small shed is built to hold materials and give shelter to the cultivator and

his buffalo when necessary. Bullocks are hardly ever employed, the well is worked by a single buffalo whose unaided exertions are sufficient in most cases to exhaust the daily water-supply. Besides the *katcha pakka* wells, there are a number of purely *katcha* ones, and a few *dhenkis* and *jhallars*. There are not many places in the district suitable for the sinking of wells, but I am in hopes that experimental borings about to be undertaken by Government with mechanical appliances beyond the reach of the zamindars will bring to light fresh sources of water supply.

Poor as the wells are, they add considerably to the security of the agriculture and it is extremely satisfactory to find that more are being sunk each year and that the area thus protected has largely increased since the previous Settlements. There were then 394 wells of all the varieties mentioned above and they irrigated 727 acres or 1.85 of an acre each. There are now 445 *katcha pakka* wells and 199 *katcha* wells, *jhallars*, &c. The area thus irrigated is now 1,301 acres giving an average of 2 acres per well.

It has been recognized that wells of this description must be treated very leniently in assessment. The best are those in the Nari-Chauntra Circle round Kark. Here a rate of Rs. 4 per acre has been sanctioned for the new revenue; in other circles the rate varies from Rs. 2 to Rs. 3 per acre. Government also sanctioned my proposal to grant protective leases to *katcha pakka* wells, under which a new well is relieved from the payment of the difference between the *chahi* rate and the unirrigated rate for the class of land in which it is sunk for a period of twenty years. Under these orders protection from enhancement of revenue has been guaranteed to 136 wells, the amount of revenue thus remitted at the introduction of the new assessment being Rs. 680.

The Chief Commissioner also accepted the principle of reducing the assessment on wells that fall out of use permanently. Rules have been framed to give effect to this on the lines of the Financial Commissioner of the Punjab's Circular No. 5890, dated 30th September 1904, and have been sanctioned in the Revenue Commissioner's letter No. 1089, dated 6th March 1907.

There are signs already that the people appreciate the leniency with which these valuable improvements are now being treated, and with a judicious but liberal system of granting *takkavi* loans a considerable extension of well cultivation may be confidently anticipated. The cost of sinking and fitting out a *katcha pakka* well varies from about Rs. 150 to Rs. 300 according to the locality and its size and depth. There is no decent wood in the district sufficiently durable to make the wheels &c. out of, and but few artisans capable of turning them out; the wheels are, therefore, imported ready made from Káwalpindi or Gujrát which adds to the expense. Small *katcha* wells with their much weaker fittings made locally cost about Rs. 50 only. Buffaloes are imported from Amritsar and other fairs in the Punjab and cost about Rs. 40 or Rs. 50 each.

41. The average area of the crops harvested during the five years previous to the re-assessment forms, Revenue rates.

as we have seen, the ground-work of the produce estimate. To this area the outturn of each crop deemed suitable for each soil has been applied (paragraph 29) and the result has been turned into its money value at the commutation prices given in paragraph 30. The value of the landlord's share has been deduced from the average rate of rent found to prevail in each circle on irrigated and unirrigated soils (paragraph 31). Dividing half this resultant sum by the area of the harvested crops we obtain the half net assets crop rates applicable to each class of soil in each assessment circle in order to produce the full theoretical demand of Government. The details of the calculations will be found in Appendix D of the Assessment Reports.

Having decided on the gross assessment to be imposed in each circle it was necessary to reduce the arithmetical half net assets crop rates proportionately so as to bring out this amount. The relevant paragraphs in the assessment reports give full reasons for the adoption of the crop rates I suggested for the purposes of my proposed assessments. The slight alterations in those proposals made by Government necessitated the modification

of a few of the rates. Those finally used in the re-assessment are given in the following table:—

CROP RATES.

Soil.	1	China.	Toi.	Kohi.	Shakardarra.	Kuz Miranzai.
		2	3	4	5	6
Obahi	Rs. a. p. 5 0 0	Rs. a. p. 2 0 0	Rs. a. p. 1 8 0	Rs. a. p. 2 0 0	Rs. a. p. 2 0 0
Chashmai dofasli	4 6 0	4 4 0	3 0 0	2 0 0	4 4 0
" ekfasli	4 8 0	3 12 0	2 0 0	...	3 8 0
Abi dofasli	4 0 0	4 0 0	...	...	4 0 0
" ekfasli	3 8 0	2 14 0	...	...	3 4 0
Talabi	1 8 0	...	...	1 8 0
Bandiza	1 4 0	1 8 0	1 0 0	2 8 0	1 4 0
Dagoba	1 4 0	0 14 0	0 10 0	1 8 0	1 2 0
Barani	0 12 0	0 8 0	0 5 0	0 8 0	0 8 0
Average incidence	3 12 4	2 6 1	0 9 7	1 0 8	1 14 7
Resultant revenue, Rs.	...	21,000	82,000	3,200	4,000	36,000

Soil.	Bar Miranzai.	Seni-Khwar-ram.	Darra.	Nari-Chauntra.	Thal.	Lawaghar.
		7	8	9	10	11
Chahi	Rs. a. p. 2 8 0	Rs. a. p. 2 0 0	Rs. a. p. 2 12 0	Rs. a. p. 1 12 0	Rs. a. p. 1 0 0
Chashmai dofasli	3 0 0	2 8 0	2 8 0	...	2 4 0
" ekfasli	2 8 0	2 8 0	2 0 0	...	2 0 0
Abi dofasli	2 8 0	2 8 0	1 8 0	...	...
" ekfasli	2 0 0	1 12 0	1 8 0	...	1 0 0
Talabi
Bandiza	1 1 0	1 8 0	1 6 6	1 6 6	1 0 0
Dagoba	0 18 0	1 0 0	1 2 0	0 15 0	0 8 6
Barani	0 10 0	0 11 6	0 12 0	0 9 0	0 4 0
Average incidence	0 18 8	0 15 11	0 14 11	0 10 11	0 7 4
Resultant revenue, Rs.	...	22,400	24,000	28,800	30,400	3,200

Note.—In Bar Miranzai there were no statistics for the cropping by soils, so that crop rates could not be worked out for that circle.

From these rates the revenue due from each soil was ascertained and dividing this sum by the corresponding area recorded as cultivated we obtain the soil rates for each acre of cultivation. These are:—

SOIL RATES.

Soil.	1	China.	Toi.	Kohi.	Shakardarra.	Kuz Miranzai.
		2	3	4	5	6
Chahi	Rs. a. p. 2 8 0	Rs. a. p. 3 0 0	Rs. a. p. 4 0 0	Rs. a. p. 2 0 0	Rs. a. p. 3 0 0
Chashmai dofasli	7 12 0	6 12 0	4 0 0	4 0 0	6 0 0
" ekfasli	4 0 0	2 3 0	2 0 0	...	3 12 0
Abi dofasli	6 8 0	5 4 0	...	...	6 12 0
" ekfasli	4 4 0	1 14 0	...	...	3 0 0
Talabi	1 4 0	...	...	1 8 0
Bandiza	0 12 0	1 0 0	0 12 0	1 12 0	1 4 0
Dagoba	0 8 0	0 8 0	0 8 0	0 14 0	1 0 0
Barani	0 3 0	0 4 0	0 3 0	0 4 0	0 8 0
Average incidence	3 15 2	1 10 7	0 7 0	0 10 0	1 14 4
Resultant revenue, Rs.	...	20,900	82,000	3,200	4,050	36,400

Soil.	Bar Miranzai.	Seni-Khwar-ram.	Darra.	Nari-Chauntra.	Thal.	Lawaghar.
		7	8	9	10	11
Chahi	Rs. a. p. 2 0 0	Rs. a. p. 3 0 0	Rs. a. p. 2 8 0	Rs. a. p. 2 0 0	Rs. a. p. 2 0 0
Chashmai dofasli	4 0 0	4 8 0	3 0 0	4 0 0	2 0 0
" ekfasli	3 0 0	2 0 0	2 0 0	...	1 8 0
Abi dofasli	4 0 0	4 8 0	2 10 0	1 8 0	...
" ekfasli	2 0 0	2 0 0	1 6 0	1 8 0	1 0 0
Talabi	1 0 0	...	...	...	...
Bandiza	0 12 0	0 14 0	1 4 0	1 2 0	0 12 0
Dagoba	0 9 0	0 8 0	0 11 0	0 13 0	0 8 0
Barani	0 6 0	0 5 6	0 8 0	0 9 0	0 6 0
Average incidence	1 7 8	0 8 8	0 11 4	0 11 2	0 7 4
Resultant revenue Rs.	...	20,000	22,400	24,000	28,800	30,400

Note.—The Bar Miranzai rates were obtained by reducing with certain modifications the Kuz Miranzai rates by one-third. It will be observed they bring out an assessment of Rs. 20,000. This revenue is not due until Kharif 1908. As all three assessments of Rs. 16,000, 20,000 and Rs. 24,000 had to be worked out and announced to the people, these intermediate rates were not altered from the original proposals. To get the rates on which the initial demand is based the rates in the above table should be reduced by one-fifth and after Kharif 1913 they will have to be raised in similar proportion.

In determining the village assessments reliance was chiefly placed on the *jamás* brought out by the crop rates. But the soil rates afforded a valuable check on the proceedings as well as furnishing a guide for the rates to be adopted in the internal distribution of the revenue.

At the suggestion of the Settlement Commissioner I provided myself with a third estimate of the revenue by means of what may be best described as fluctuating assessment crop rates, to show which villages grow the more valuable crops. The crops were divided into two classes :—

Class I.—Wheat, rice, maize, sugarcane, fruits, chillies, tobacco, vegetables and clover.

Class II.—Barley, gram, *taramira*, *jowar*, *bajra*, *kangni*, *moth*, *mung*, *til*, cotton and miscellaneous.

The village *jamás* deduced from the rates quoted below were extremely useful in directing attention to an important difference in resources. It was not thought necessary in Kohát and Hangu to recalculate those given in the assessment reports :—

FLUCTUATING ASSESSMENT CROP RATES.

CLASS OF CROPS.		China.	Toi.	Kohi.	Shakardarra.	Kuz Miran-zai.
1		2	3	4	5	6
IRRIGATED	Class I ...	4 4 0	4 0 0	3 0 0	...	4 4 0
	Class II ...	2 8 0	2 8 0	2 0 0	...	2 8 0
UNIRRIGATED	Class I ...	1 4 0	1 0 0	0 11 0	1 4 0	1 1 0
	Class II ...	1 0 0	0 12 0	0 6 0	0 12 0	0 12 0
Resultant revenue, Rs.		20,000	80,000	3,200	3,800	35,000

CLASS OF CROPS.		Bar Miran-zai.	Seni-Khwaram.	Darra.	Nari-Chauntra.	Thal.	Lawaghara.
		7	8	9	10	11	12
IRRIGATED	Class I ...	2 12 0	...	...	...	...	...
	Class II ...	1 12 0	...	...	...	...	...
UNIRRIGATED	Class I ...	0 14 0	1 0 0	1 3 0	1 2 6	0 12 3	0 9 3
	Class II ...	0 8 0	0 12 6	0 14 0	0 12 0	0 10 0	0 6 0
Resultant revenue, Rs.		20,100	22,500	24,000	28,800	30,400	3,200

42. From these three sets of rates assessments were worked out for all the estates in the district. The Settlement Tahsildars and Extra Assistant

Distribution of the revenue.

Settlement Officer also furnished me with their ideas as to the *jamás* fairly assessable on the villages in their circles. Having provided myself with these figures I proceeded, as soon as orders were received on the assessment reports, to distribute the revenue sanctioned for each circle over the villages composing it. This was done at selected centres to which the people were summoned. These were Kohát, Khushhálgarh, Ustarzai, Hangu, Thal, Láchi, Báná Dáud Shah and Kark. The announcements were made in December 1903 and January 1904 for the Kohát and Hangu Tahsils, and in October 1904 for Teri.

Before announcing the new revenue which I had provisionally decided upon for a village, I discussed with the people the manner in which they proposed to distribute it over their fields. They had already been consulted by the Tahsildars on this point, and *bachh* files had been prepared. This enabled me to see

how the assessment was actually going to fall upon the land and to modify my previous notions where necessary. In some cases what seemed to me a fairer method of carrying out the internal distribution than the one they proposed was suggested to the people and accepted by them. This generally consisted of seeing that the owners of rich irrigated lands paid their proper share and did not shift their burden on to the community generally by over-assessing the poorer lands. Frequently a small alteration in the total revenue of a village made it possible to fix simple *bachh* rates. These rates were, wherever feasible, expressed in even annas per acre, and if that was not attainable in fractions of an anna not smaller than a pice.

This process took up some time, especially in irrigated villages with a large number of soils, but the time was well spent. The people learnt, as soon as they heard what their total revenue was to be, how it was going to affect each acre of their land. They were much more interested in hearing what each acre, or rather *jarib* (half an acre) was to pay, than in being told a large lump sum assessed on the village. In the case of large enhancements it was often possible to attempt to console them by pointing to the minuteness of the acreage rates. Apart from this a great deal of time was saved in the subsequent operations, and a great opportunity for jealousy, faction feeling, oppression and malpractices removed, by taking away the necessity for all further discussion of the method of distribution in the tahsils. Along with the order announcing the new assessment, an order was passed fixing the rates at which the internal distribution was to be made, and the patwari at once proceeded to work out the *bachh*.

The assessments were thus announced by myself for all the 291 villages under regular settlement. The number of applications for reconsideration of the assessment under Section 52 of the Land Revenue Act was 91 (Kohát 47, Hangu 30, Teri 14); all of these were rejected. In a few villages the method of distribution was objected to, and in some of these such as Garhi Muáz Khán and Togh (Kohát) alterations were made on good grounds being shown that the first distribution was unfair.

The number of appeals preferred to the Revenue Commissioner against the assessments was 22 in the whole district (Kohat 15, Hangu 4, and Teri 3). Of these 16 were rejected. In the Kohát Tahsil the assessments of four villages were reduced by Rs. 480 (Garhi Muáz Khán from Rs. 5,600 to Rs. 5,440, Kaluchinna from Rs. 1,300 to Rs. 1,160, Dáud Khel from Rs. 1,700 to Rs. 1,600 and Miri from Rs. 640 to Rs. 560) and a temporary remission of Rs. 200 was granted for three years in one village (Surgul). In Hangu, the assessment of one village (Bagatán) was reduced by Rs. 125 from Rs. 1,000 to Rs. 875. No appeals were accepted in the Teri Tahsil. It is remarkable that in Bar Miranzai where the previous recoverable assessment was practically doubled, not a single appeal was lodged from the eight villages concerned. I was given to understand that the people held a *jirga* on the subject and decided not to appeal lest worse things might befall them! The villages which appealed unsuccessfully were —

Kohát Tahsil. — Chilli Badber, Jabbi, Gadda Khel, Sumári Páyán, Kurd, Bázid Khel, Togh, Dhoda, B. Abdul Samad and Shádi Khel.

Hangu Tahsil. — Khwája Khízar, Lodhi Khel and Ibrahimzai.

Teri Tahsil. — Laad Kamar, Chokáca and Darish Khel.

43. From paragraphs 38 to 40 it will have been seen that the actual payments of the people fall far short of the total assessment. The following statement shows the full revenue announced to the people, after deducting the amounts remitted on appeal, and the several remissions granted, and compares the new net assessment with that previously levied :—

New revenue of the district.

Circle.	Total assessment.	Frontier remissions.	Temporary remissions.	Protective leases on wells.	Net assessment payable.	Previous net assessment.
						Rs.
China ...	21,000	4,245	1,280	...	15,475	11,849
Toi ...	81,485	3,842	6,682	296	70,665	47,649
Kobi ...	3,200	445	340	1	2,414	1,705
Shakardarra ...	4,300	...	...	...	4,300	3,443
Tahsil Kohat ...	1,09,985	8,532	8,302	297	92,854	64,146
Kuz Miranzai ...	35,875	8,458	3,183	28	29,233	19,196
Bar Miranzai ...	10,050	8,650	...	62	12,338	6,849
Tahsil Hangu ...	51,925	7,108	3,163	88	41,51	25,445
Seni Khwarram ...	22,432	...	...	54	22,876	24,016
Darra ...	24,000	...	1,191	27	22,782	19,541
Nari-Chauntra ...	28,000	...	...	209	27,791	24,852
Thal ...	30,400	...	4,700	2	26,898	17,123
Lewaghar ...	8,900	...	...	3	8,197	2,862
Tahsil Teri ...	1,08,082	...	5,891	295	1,01,846	88,401
District ...	2,69,942	15,635	17,358	680	2,36,271	1,77,992

In only one circle, Nari-Chauntra, did I find myself unable to assess up to the amount sanctioned by Government, the detailed assessments falling short of that amount by Rs. 800. The excess of Rs. 32 in Seni-Khwarram is nominal, being assessed on a *rakh* belonging to the Khán of Teri in the village of Ghurzandi, and the excess of Rs. 50 in Bar Miranzai is the amount of the grazing lease in Chapri Waziran. In the Toi Circle the amount originally announced was Rs. 82,000; out of this besides the sum of Rs. 480 reduced on appeal, Rs. 32 had to be remitted in Mauza Sheikhán after the settlement of a dispute as to water rights, and a reduction of Rs. 3 in Mauza Miri followed on the acquisition of land for Government. In the Kuz Miranzai Circle, as already noted, the sum of Rs. 125 was reduced on appeal. The amount remitted in frontier remissions is practically the amount sanctioned by Government. The temporary remissions exceed the sanctioned sum of Rs. 15,000, but the reasons for the excess were accepted as sufficient by the Chief Commissioner in his Revenue Secretary's letters No. 225 H., dated 17th September 1904, and No. 681, dated 17th February 1905, sanctioning the detailed village assessments in Kohát-Hangu and Teri respectively.

Out of the total land revenue assessment of the district, amounting to Rs. 2,69,900, a sum equal to 5·8 per cent. has been remitted for border service and 3 per cent. has been remitted for varying periods in protective leases on wells, while the realisation of 6·4 per cent. has been suspended for three years. The amount immediately payable by the people is 87·5 per cent. of the assessment and represents an increase of 32·6 per cent. on their previous net payments of practically Rs. 1,78,000.

When the temporary remissions granted for three years fall in, the net assessment will be about Rs. 2,53,580 and the increase on the past payments 42·5 per cent. In Bar Miranzai the progressive assessment will yield in 1908-09 an increase (allowing for the proportional increase in frontier remissions) of about Rs. 3,100 and raise the recoverable demand to about Rs. 2,56,680 and the percentage of increase to 44·2 per cent. A similar enhancement in 1913-14 will leave the recoverable revenue of the district at Rs. 2,59,780, or say Rs. 2,60,000, making the final increase about 46 per cent. above the old net payments.

The increase is heavy but is reached by easy gradations, and is not excessive when we reflect how lightly portions of the district have hitherto been assessed.

44. At the previous settlements 156 villages out of 223 held on shares or in *hayachara* tenure adopted soil rates adopted in the *bachh*, rates for the distribution of the revenue. The remainder decided to pay their revenue at an all-round rate on cultivation, or in accordance with the ancestral shares on which the land was theoretically held. The proportion of villages adopting the two latter methods steadily decreased with each settlement, from 40 out of 91 in Kohát and Kuz Miranzai, and 25 out of 70 in Bárak, down to only 2 out of 62 in the Khaitak Circles. The average rates at which it was found that the zamindars had carried out the internal distribution were worked out and given in the Assessment Reports (paragraphs 59 and 60).

All-round rates and rates based on ancestral shares are now recognised by the majority of the people as unfair in their action. Out of 241 villages not owned by single proprietors or single families, there are only 43 villages in which the new assessment has not been distributed by soil rates settled with the zamindars in the manner described in paragraph 42. In Statement No. 3 attached to this report will be found the average rates on each soil in each circle thus used in the actual *bachh*. From this it will be observed that 265,812 acres, or 90 per cent. of the total cultivated area, are now assessed at soil rates. The revenue on this land is Rs. 2,52,251, which represents about 93 per cent. of the total assessment. The average rate per acre on all classes of land is 15 annas 2 pies. Comparing the *bachh* rates in the different circles with the soil rates sanctioned, we find that the most important differences are:— in the Toi Circle the people have been more lenient on the irrigated soils, except *abi ekfasli*, and more severe on the unirrigated (e. g., their *dagoba* rate works out at 10 annas against my rate of 8 annas,) and in Shakardarra and Kuz Miranzai they have put the *dagoba* and *barani* soils much more nearly equal than I proposed. Otherwise it is gratifying to find how many of my rates the people have to all intents and purposes been satisfied to adopt in the practical business of distribution.

45. The assessments have, in accordance with the Chief Commissioner's orders, been announced provisionally for a term of twenty years. I recommend that this term be confirmed. In the Kohát and Hangu Tahsils the revised assessments came into force from Kharif 1903, and in the Teri Tahsil from hKarif 1904. The Settlement will, therefore, expire with the Rabi harvest of 1923 in the two former tahsils and with Rabi 1924 in Teri.

The dates fixed for the recovery of the revenue are the same throughout the district, and are:— 15th December for the *kharif* and 1st July for the *rabi*. The revenue of each harvest is recovered in one instalment. Sums not paid within fifteen days of the due date, i.e., by 1st January and 15th July are considered to be in arrears.

46. Water-mills for grinding corn form in the Kohát and Hangu Tahsils a valuable asset to the men who are fortunate enough to own them. They cause however some interference with rights in irrigation and also some waste of water. No new mills are therefore allowed to be constructed, nor are mills which have fallen out of use allowed to be restarted, without the previous sanction of the Deputy Commissioner. The erection of new mills is not encouraged. This policy has created a virtual monopoly in favour of the existing mills and has much enhanced their profits.

The principles on which Captain Hastings assessed mills at last Settlement are given in detail in paragraph 72 of the Kohát-Hangu Assessment Report. He divided the mills into six classes in accordance with their size, water-supply and situation as regards the demand for the grinding of corn. Having fixed a maximum rate for each class he based his assessment on a valuation of one-half to one-third of the net profits of each mill. But as mills were then being assessed for the first time the actual assessments were kept well below the results of these calculations, and a large proportion of the revenue was remitted to the owners

for life or for the term of settlement according to the length of time the mill had been in existence. Provision was made for the remission of the revenue on disused mills and for the assessment of new mills.

For the re-assessment of mills my instructions were that one-third of the estimated net profits should be taken as the maximum assessment, and that subject to the maintenance of life remissions which had not yet lapsed, no remissions should be granted or continued unless the revenue had been assigned for reasons other than that mentioned above. The Chief Commissioner thought that the total assessment should be between Rs. 4,000 and Rs. 5,000 and nearer to the latter than to the former sum.

After the Settlement Tahsildar had completed his local enquiries into the profits of the mill owners I proceeded in November 1904 to frame an assessment based on the following scale—one-third of the net profits on the large and valuable mills round Kohá city and cantonments, one-fourth on the smaller Kchát mills and on the best mills in large villages like Hangu, and one-fifth on the ordinary little mills in outlying villages. These rates however produced a total assessment of Rs. 6,155 and in view of the great increase in the revenue to be levied on individual mills owing to the leniency of the previous assessment, it was decided to reduce the total demand to Rs. 5,000. This was done by the Deputy Commissioner, Captain B. C. Waterfield, and myself in consultation in March 1905. The effect of this was practically to reduce the rates of assessment noted above from one-third, one-fourth and one-fifth to one-fourth, one-fifth and one-sixth respectively. The latter rates should accordingly be adopted during the currency of this Settlement for the assessment of new mills to the starting of which sanction may be granted. Certain small reductions were made by the Revenue Commissioner on appeal which left the final assessment at Rs. 4,953. This assessment came into force from Kharif 1904.

The following table shows the result of these operations:—

Circle.	Number of mills.	Total estimated income.	Owner's profits.	Original assessment.	Revised assessment.	Final assessment.	Percentage of assessment on profits.	Previous assessment.	Ra. a. p.	
									Rs.	a. p.
China	39	6,031	2,951	708	573	578	19·4	176 8 0		
Tei	55	40,362	10,938	3,263	2,700	2,664	24·3	858 10 0		
Kuz Miranzai	46	9,830	5,904	1,266	1,000	996	16·8	400 0 0		
Bar Miranzai	42	7,406	4,671	918	730	730	16·0	208 0 0		
District	182	63,629	24,364	6,155	5,005	4,953	20·3	1,641 2 0		

NOTE.—Since the assessment was made 2 mills in Kuz Miranzai have been abandoned and 3 new ones started, or rather abandoned mills brought again into use. The assessment in that circle is now Rs. 1,006 making the mill revenue for the district Rs. 4,963.

Thus taking all the mills together the assessment now imposed averages only one-fifth of the estimated net profits to the owners. At the commencement of last settlement out of a total mill assessment of Rs. 1,630 as much as Rs. 1,125 were assigned in *muafis*. At the expiry of the settlement Rs. 566 were assigned out of Rs. 1,781, i.e., nearly 32 per cent. A few mill *muafis* (9) had to be reported for orders, and if the proposals I have made are accepted, there will now be 20 mills on which the sum of Rs. 670 will be assigned to the owners. This is only 13·5 per cent. of the new assessment of Rs. 4,953, and even out of this small sum Rs. 130 on 8 mills will be resumed on the deaths of the present *muafidars*, leaving finally assignments in 12 cases worth Rs. 540 or less than 11 per cent. which will be reconsidered and probably continued when the present assignees die.

47. The past practice in regard to the levy of cesses is given in detail in paragraphs 353 and 354 of the Kohá Cesses Settlement Report. Before 1871 cesses

amounting to Rs. 11·8·0 per cent. of the land revenue were taken in the Kohá Tahsil and Rs. 9·8·0 per cent. in the Hangu Tahsil. These were to pay for lambar

dars Rs. 5, patwaris Rs. 4-8-0 in Kohát and Rs. 2-8-0 in Hangu, schools Re. 1 and roads Re. 1. No cesses at all were levied in Teri. The local rate cess, introduced in 1871, was collected throughout the district at the rate of Rs. 6-4-0 per cent. and was in 1878 raised to Rs. 8-5-4 by the imposition of the famine cess. But in the Teri Tahsil this combined cess was credited to Government on the Khán's quit rent only, the Khán retaining the balance. During 1878-79 a *dák* cess of 8 annas per cent. was introduced, and the patwari's stationery cess was reduced from 8 to 4 annas.

At the time of the regular settlement therefore the cesses being levied in the Kohát Tahsil were Rs. 20-1-4 and in the Hangu Tahsil Rs. 8-1-4. In both tahsils the patwar cess was then raised to Rs. 6 *plus* 4 annas for stationery in order to pay for the new staff of patwaris required to keep the records then prepared up to date. In Teri there were no patwaris and no regular lambardars, and there the cesses levied on the quit rent were only Rs. 10-13-4 instead of Rs. 22-1-4 paid in the other tahsils. After the Bárak Settlement the introduction of patwaris and the appointment of lambardars raised the cesses in that tract to the Kohát-Hangu level; the patwari cess of Rs. 6-4-0 was credited to the district patwar fund; the lambardari cess of Rs. 5 was paid to the lambardars; the school, road and *dák* cesses amounting to Rs. 2-8-0 were credited to Government; but of the local rate of Rs. 8-5-4, though it was collected in full from the people, only the amount due on the Bárak half of Khán's quit rent, *i. e.*, on Rs. 10,000, was credited to Government, the rest being left with the Nawáb to devote to local improvements. This arrangement was sanctioned only for the Nawáb's life-time and ceased with his death in 1889. Since that year the local rate cess, consolidated at Rs. 10-6-8 per cent. has been credited in full to Government in the Bárak tract. After the Khattak Settlement the levy of these cesses was extended to that portion of the Teri Tahsil.

At the commencement of the present settlement proceedings the cesses in force throughout the district were therefore the local rate of Rs. 10-6-8, the patwar cess of Rs. 6-4-0 and the lambardari *pachotra* of Rs. 5, or a total sum of Rs. 21-10-8 per cent. on the land revenue. In order to improve the pay and prospects of the patwaris and to provide for a contribution to the cost of the Kanungo establishment, it was decided to raise the patwar cess to Rs. 6-7-4 in accordance with the general policy pursued in the Punjab. The cesses announced to the people along with the new assessments amounted therefore to Rs. 21-14-0 per cent. on the revenue.

Since then however the famine cess of Rs. 2-1-4 has been abolished from the 1st April 1905 by the Government of India in their Resolution No. 882, dated 16th May 1905. And while this report was being written, has come the welcome news that Government has undertaken the payment of the patwaris. The patwaris, in the Kohát District at any rate, could from the first be regarded as "village servants" only by a severe stretch of the imagination, and the fiction was becoming more and more difficult to maintain as the revenue work of all kinds demanded by Government for its own purposes yearly increased. The patwar cess was abolished from 1st April 1906 by Notification No. 1476, dated 31st March 1906, issued by the Chief Commissioner of the North-West Frontier Province.

From the rabi harvest of 1906 the only cesses levied are:— the lambardari *pachotra* of 5 per cent. on the revenue which is paid to the village headmen direct for the services they are called upon to render to the village and to Government, and the local rate of Rs. 8-5-4 per cent., payable to the District Board and spent on local requirements, such as the maintenance of roads, buildings, schools, dispensaries, &c. These cesses amounting to Rs. 13-5-4 per cent. or $2\frac{2}{5}$ annas per rupee (it is a pity that the fraction is not a simple one) are collected on the whole nominal revenue including frontier remission, mill revenue and sums assigned to jagirdars and muafidars. But in the Teri Tahsil cesses are not levied on the share of the land revenue ($1\frac{1}{2}$ annas in the rupee) set apart as the *talugdari* of the Khán of Teri. The *talugdari* is really an integral portion of the land revenue, but for reasons of its own Government has given it the semblance of an extra cess levied on the Khattaks, and it has been thought advisable to avoid all chance of appearing to levy a cess upon a cess.

The previous full revenue demand on land and mills, but excluding *talugdari*, was Rs. 1,89,977, on which Rs. 40,950 were levied in cesses. The corresponding new revenue demand is Rs. 2,64,727 on which, when orders were

passed on the assessment reports, it was contemplated to levy cesses amounting to Rs. 57,900, but owing to the recent concessions the amount now leviable is Rs. 35,300. The remissions of taxation in 1905 and 1906 have therefore benefited the Kohát zamindars to the extent of reducing their payments in cesses by Rs. 22,600 below the sum they would otherwise have paid on the new assessment. The amount now due is actually Rs. 5,650 below their former payments. Or, in other words, the total demand in the district for land revenue, mill assessment, *taluqdari* and cesses was in 1902-03 Rs. 2,36,650 ; the new demand under these heads is Rs. 3,10,155 and but for the remission of the patwar and famine cesses would have been Rs. 3,32,755. The increase in the total revenue payments would have been $40\frac{1}{2}$ per cent., but is only 31 per cent. The effect of this very appreciable reduction in taxation has been admirable, as the benefit does in fact reach the actual revenue payer.

A small *miráhi* cess of one per cent. on the revenue of irrigated villages in the Kuz Miranzai, Chína and Toi Circles used to be collected to provide for a small establishment which looked after the distribution of the water available for irrigation. This duty has, since the 1st January 1905, been made over to the regular staff of field kanungos, and the special establishment is no longer entertained. The cess was abolished from the introduction of the new assessment. The income from it only averaged Rs. 840 per annum. Its effect was purely local, but the concession is worth noticing.

48. The revision of the registers of land revenue assignments proved to be a much more lengthy and troublesome business than was anticipated.

Land revenue assignments.
For this there were several reasons. The investigation made at the Regular Settlement was the first which had been attempted in the district. It was commenced by Captain Hastings in 1877 and finished by Mr. Tucker in 1882. The orders of Government on the registers were passed in 1883 and 1884. Unfortunately no fresh and complete registers were then prepared to show the assignments as finally sanctioned. The original registers had not been written up according to any method or system whatever. Moreover, since Mr. Tuckers' time hardly a single note had been made in them (except in the one containing the lambardari inams) of subsequent changes by inheritance, resumption, &c. We had in fact to refer back to the entries of 1877-78, many of which had become obsolete even before 1883-84.

Although the investigation into assignments covered only the Kohát and Hangu Tahsils, the number of cases which had to be gone into amounted to just over 1,000. In about 300 of these simple orders of resumption were all that were required. The new registers contain 598 cases. In 270 of these no orders were required, the existing orders permitting of continuance of the assignments to the holders. A register containing 165 cases of muafis which required the orders of Government was submitted with my letter No. 93, dated 11th April 1906. Another register containing 198 cases of lambardari inams was submitted with letter No. 99, dated 22nd April 1906 ; and further proposals for the grant of two cash zamindari inams have been made in my letter No. 880, dated 16th June 1906.

New English registers have been prepared of all the assignments and arranged as follows :—

- (i). Jagirs and muafis released during the pleasure of Government. This will contain 34 cases, in which assignments of the value of Rs. 16,632 will be held by 11 different grantees or families.
- (ii). Muafis released for the term of settlement or liable to re-consideration on the death of the present holders. This will contain 122 cases involving Rs. 2,812.
- (iii). Muafis assigned for the maintenance of institutions. There are 86 cases in the register, and the amount of revenue assigned is Rs. 927.
- (iv). Muafis liable to resumption on the death of the present holders. There will be 179 cases in the register, and the amount of revenue assigned will be Rs. 1,637. This register will gradually disappear as the assignees die off.
- (v). Lambardari inams. If the proposals reported are accepted there will be 161 cases involving Rs. 3,065. Of the 198 cases reported resumptions have been recommended in 37.

(vi). Cash life inams. Again, if new proposed grants are sanctioned, there will be 16 cases in which Rs. 3,459 will be enjoyed by the grantees for their lives—subject to reconsideration on their deaths.

When the cases which have been referred for orders are received back they will be arranged according to their villages in their appropriate registers and these will then be bound. Vernacular translations will then be made for use in the tahsils.

Two of the old registers mentioned in paragraph 379 of the Kohát Settlement Report have been abolished. They are Nos. VI and VII (old numbering) relating to "muafis to village servants" and "muafis in Shakardarra." In the former cases the villagers were given the option of excluding the land hitherto held revenue free by village servants from the *bachh*. They very seldom agreed to do so, showing that there was really no necessity for granting an assignment; in such cases the muafis have been resumed unless the present holders had enjoyed them for a long time when they were continued for the remainder of their lives, to be resumed on their deaths; they have now been included in Register No. iv (new numbering). No register is maintained of small plots which the zamindars exclude from the *bachh*.

The Shakardarra muafis were at last Settlement kept in a separate register because of a controversy between the Khár of Makhad and the assignees, and because the extent of the interference Government was prepared to exercise between them had not been decided. There is nothing now to distinguish them from ordinary assignments, as the Khán has no power of resumption of his own motion, except the fact that resumptions when they take place are in favour of the Khán as jagirdar. There being no necessity for a separate register, the cases have been included in the new registers *ii* and *iv* above-mentioned.

The following table shows the result of the revision now carried out, and gives the amount of revenue assigned in each circle, if the proposals submitted to Government are sanctioned in their entirety:—

JAGIRS, MUAFIS AND INAMS IN KOHAT AND HANGU.

Circle.	Jagirs and muafis held during the pleasure of Government.	MUAFIS.			LAMBARDARI INAMS.		Cash inams.	Total assignments.
		Released for term of Settlement or to be re-considered on death.	Released for maintenance of institutions.	To be resumed on death.	In muafis of land.	In cash.		
Chiná ...	... ...	339 27	27 4	169 13	78	411	321	1,345 44
Toi ...	10,151	1,466 23	342 6	657 7	172	925	2,738	16,451 41
Kohi ...	397	48 1	450 6	29 1	4	192	...	1,120 8
Shakardarra ...	3,754	87	...	119	50	140	...	4,150
Tahsil Kohat ...	14,302	1,940 56	819 16	974 21	304	1,668	3,059	23,056 98
Kuz Miranzai ...	2,829	819 130	85	206 30	81	418	100	4,038 160
Bar Miranzai ...	1	53	27	57 7	...	595	300	1,033 7
Tahsil Hangu ...	2,330	872 130	112	268 37	81	1,013	400	5071 167

Note.—The antique figures show the amount of the frontier remissions included in the revenue assigned to muafidars. Frontier remissions have been excluded from the jagirs so as not to exaggerate their value.

49. Death has been busy with the leading men of the Kohát District in the last few years. There never have been, and are not now, too many men of real prominence and position in the district. The poverty of the district in this respect affords a good illustration of its general barrenness and isolation.

1. The death of Shahzada Sir Sultan Jan, K. C. I. E., in May 1904 robbed the district of one of its two figure-heads. His life grants of Rs. 1,600, then

lapsed. His son, Mir Alam Jan, has been recognised as heir to the perpetual jagir of Rs. 5,000. Of this sum Rs. 1,685 are allotted in the villages of Bakizai and Tappi, the remaining Rs. 3,315 being recoverable in the Peshawar District.

2. The jagir of the Khán of Téri is on a special footing, and is sufficiently discussed elsewhere in this report.

3. Khán Bahádur Khusdil Khán, Bangash, holds a perpetual jagir, subject to the pleasure of Government, of Rs. 5,380 in the villages of Kharmátu and Mir Ahmed Khel. His uncles share in the Mir Ahmed Khel portion of the jagir. The family also holds perpetual muafis of land amounting to Rs. 1,317, in Bahádur Kot and ten other villages and a mill assessed at Rs. 75.

4. Khán Bahádur Allahyár Khán, Bangash, titular Khán of Hangu, died in January 1902. His son Nakshband Khán has been recognised as his successor and holds the hereditary jagir worth Rs. 378, in Hangu, Mardu Khel, Zanki, and Doába. The family also enjoys muafis of land valued at Rs. 330 and two mills assessed at Rs. 90.

5. Khán Bahádur Muhammad Usmán Khán, Bangash, also of the Hangu family, died in June 1905. His son Khán Bahádur Ghulám Sadiq Khán and his brother Muhammad Akbar Khán now hold jagirs of Rs. 1,600, and Rs. 400, respectively, allotted to them in the villages of Kharsha, Kotkai and Darband. The family also holds muafis of land assessed at Rs. 135-8-0 and three mills valued at Rs. 128.

6. Sher Muhammad Khán, Ságri, Khán of Makhad, holds the Shakardarra tract in perpetual jagir subject to the usual conditions. Its value to him at present is Rs. 3,754, in Shakardarra and its two rakhs Sobhan and Topi. He also enjoys a *chaháram* (one-fourth) of the revenue of the Makhad *illaqua* in the Attock District.

7. Muhammad Afzal Khán, Khattak, one of the two chiefs of the eastern Khattaks, died in January 1902. He held along with other grants a jagir then worth Rs. 327 in the Kohi Circle. Under the orders of the Government of India, in their Foreign Secretary's letter No. 2321 F., dated 12th August 1903, the jagir was resumed owing to the disgraceful misconduct of himself and his sons.

8. Sadullah Khán, Khattak of Amir, in the Khwarra Tappa, and his step-brother, Shád Muhammad Kbán, hold the villages of Khushálgarh and Kbwája Kbel in the Kohi Circle in jagir. The value of the jagir is at present Rs. 397, out of Rs. 520, the revenue of the two villages. Sadullah Khan also gets a cash inam of Rs. 100 from the income from the Khwarra Zira forests.

9. Sayad Jalál Shah, Banuri Sayad of Baháwalgarh, is jagirdar of that village, now assessed at Rs. 350, and also holds a mill worth Rs. 60.

10. Táj Muhammad Khán, son of Atá Muhammad Khán, is an Extra Assistant Commissioner in the Punjab. He belongs to the Bangash Khan's family and has a share amounting to Rs. 126 in the Mir Ahmed Khel jagir, and muafi lands worth Rs. 191, besides a cash inam or rather political pension of Rs. 1,000 per annum paid from the general revenues and therefore not included in the statement in the previous paragraph.

11. The Mian Khels of Mian Khel, the descendants of a famous saint, Hájji Bahádur, whose tomb is the most venerated shrine in the Kohát town, hold the village of Mian Khel in perpetual muafi. This was worth Rs. 1,253, but owing to land acquisitions by Government its value has sunk to Rs. 1,144. The Mian Khels also have small revenue free grants in 12 villages amounting to Rs. 140.

12. The family of Dharm Singh, who was Tahsildar of Kohát after annexation, hold a jagir and muafis of land in Garhi Muáz Khán valued at Rs. 274. The leading member of the family Sardár Ajab Singh, a retired Tahsildar, died in January 1906.

The holders of the following muafis enjoy assignments of some importance :—

	Rs.
The Shinu Khel family of Regi Shinu Khel, headed by retired Ressaldar-Major Abdullah Khán	548
The Mians of Ziárat Sheikh Allahdád for the up-keep of their shrine,	399

	Rs.
Said Kásim of Sherkot (plots in 18 villages)	318
The descendants of Mian Abdul Waháb known as the Máshu Khel family (plots in 27 villages)	225
Makhdum Shah, Jilláni Sayad of Jangal, and his family	122
Kázi Shams-ud-din of Kohát (in Muhammadzai)	107
Sayad Báqir Shah of Sháhu Khel	100

The larger of the cash *ináms* held by leading men are—

Khán Bahádur Malik Ján, Kiyáni of Shahpur, for services in the Miranzai Expedition (Rs. 300) and (Rs. 1,500) as a favourable assessment of the Crown village of Shahpur (besides muafis in Shahpur and Bamman amounting to Rs. 409)	1,800
The Chartappa lambardars of the villages round Kohát: at present Bahram Khán of Garhi Muáz Khán (Rs. 100); Ata Muhammad Khán of Bezádi (Rs. 100); Harun of Pir Khel (Rs. 100); and Shahbáz Khán of Jangal (Rs. 100) and 8 others of Rs. 50 each...	550
Subadar Major Hazrat Shah of Darmalak (Teri) from revenue of Manza Gadda Khel (a military grant)	450
The family of Said Kásim Shah of Jangal [Makhdum Shah, son of Phul Básdshah (Rs. 100), Ghulám Muhammad Ali Shah and Ghulám Hassan Ali Shah, sons of Saidan Gul (Rs. 100); and Said Ghulám, son of Said Kásim Shah (Rs. 100)]	300
Rasul Khán, Izzat Khel of Chilli Badber	200
Malik Bhangi of Darsamand	200
Malik Makhmud of Nariáb	100
Sayad Báqir Shah of Sháhu Khel (as well as his muafi)	100

These jagirs, muafis and *ináms*, along with the numerous smaller grants, embrace practically all the men of any importance in the Kohát and Hangu tahsils. The leading men all hold substantial assignments. There are therefore but few suggestions to be made regarding the grant of new *ináms*. Only two grants of as large a sum of as Rs. 100 have been proposed, one for Sayad Gul Básdshah, of Marai, an extremely useful man on the Marai border, and one for Sarwar Khán of Hangu and Kach, a member of the Hangu family who deserves consideration.

50. At last settlement lambardari *ináms* amounting to Rs. 3,250 were granted in the Kohát and Hangu Tahsils. At the expiry of the assessment the grants

amounted to Rs. 2,713. In revising these *ináms*, the following principles have been kept in view; (a) to continue all *ináms* which serve a useful purpose unless liable to forfeiture for misconduct, breach of conditions or alienation of the land; (b) to simplify matters by substituting, where feasible cash *ináms* for complicated *muafis*, and by resuming those which were so small as to confer no appreciable benefit on any one; (c) to confer substantial *ináms* on deserving men, instead of frittering away small sums on nonentities; and (d) where sub-division of property or re-assessment had caused a wide divergence from the original intentions of Government, to return to those intentions.

These processes resulted in a reduction of the total number of old *ináms* from 168 to 131, and in a saving of Rs. 842 on the new assessment of the lands concerned, from which proposals have been made to grant 30 new *ináms* to deserving lambardars amounting to Rs. 620. If these proposals are sanctioned the amount of revenue assigned to lambardars to encourage them in the performance of their duties will stand as follows:—

	Kohat.	Hangu.	Total.
	Rs.	Rs.	Rs.
Muafis or revenue free lands	... 304	81	385
Cash <i>ináms</i>	... 1,667	1,013	2,680
Totals	... 1,971	1,094	3,065

All these *ináms* are granted for the term of Settlement and with respect to them the Chief Commissioner has been asked to rule that in cases of ordinary succession to a deceased or resigned lambardar, the Deputy Commissioner shall have power to continue the *inám* without any reference to higher authority. Hitherto, all such cases of continuance have been referred for the orders of the Commissioner of the Division (now the Revenue Commissioner, North-West Frontier Province), a quite unnecessary formality. It is to be strictly understood that these *ináms* are

granted conditional on the good behaviour, loyalty and service of the holders, and the inám of a lambardar who misconducts himself should be at once resumed. Should the Deputy Commissioner wish to resume an existing inám otherwise than for misconduct, or should he wish to continue an inám liable to forfeiture for misconduct, he should obtain the sanction of the Revenue Commissioner. Within the term of the new settlement, lambardari ináms will be thus left entirely under the control of the Deputy Commissioner. It is hoped that the new register which has been arranged by villages, and is in English, will be kept up to date, and thus simplify the work of future revisions.

51. To arrive at the financial results of the re-assessment operations we have to combine the figures in paragraphs 43, 46, 48 and include the malikána due on Crown lands. For this purpose we may disregard the temporary remissions granted in Kohát and Hangu, as they will lapse with the next kharif harvest; the temporary remissions in Teri and the assignments and protective leases on wells in that tahsil, do not affect the question as the whole revenue is jagir.

CIRCLE.	FIXED LAND REVENUE.						Malikána on Crown lands.	MIL ^{RE} REVENUE.	TOTAL REVENUE.		
	Total.	Frontier remissions.		Jagirs.	Cash ináms.	Muafis.	Protective leases on wells.	Recoverable.	Recoverable.	Assigned and remitted.	Grand Total.
		Rs.	Rs.								
Chini	21,000	4,245	...	732	570	...	15,453	...	485	88	15,938
Toi	81,485	3,842	10,151	3,663	2,596	296	60,987	580	2,334	320	68,851
Kohi	8,200	445	297	192	523	1	1,642	...	...	...	1,642
Shakardarra	4,300	...	8,754	140	256	...	150	...	...	...	150
Tahsil Kohat	1,09,985	8,532	14,802	4,727	3,945	297	78,182	580	2,810	408	81,581
Kuz Miranzai	35,875	3,453	2,329	518	1,081	28	28,518	1,145	768	238	30,431
Bar Miranzai	16,050	8,650	1	895	130	62	11,312	...	706	24	12,018
Tahsil Hangu	51,925	7,103	2,380	1,413	1,161	88	39,830	1,145	1,374	262	42,449
Tahsil Teri	1,08,032	...	88,082	...	...	...	20,000	...	...	...	20,000
District	2,69,942	15,635	1,04,664	6,140	5,106	885	1,38,012	1,725	4,203	670	1,44,080
Previous assessment, whole district.	1,98,918	15,926	84,016	8,881	7,891	...	82,904	*1,334	1,215	566	85,427
											1,11,606
											1,97,083

* Included Rs. 26 jagir.

The increase in the land revenue, which the Financial Commissioner of the Punjab anticipated in 1899, when reviewing the Forecast Report, was Rs. 73,723 in the total demand, and Rs. 42,525 in the khalsa demand. The Lieutenant-Governor in asking for sanction to the settlement did not commit himself to any estimate, but said he considered it would result in a considerable increase in revenue.

The actual increase in the fixed land revenue has been Rs. 76,000 and in the gross revenue demand Rs. 79,600. While the amount of the assigned revenue has gone up by Rs. 21,000 the khalsa revenue has increased by Rs. 58,600. The proportion of the former gross demand of Rs. 1,97,000, which went to assignees or was remitted, was considerably more than half, being 56.65 per cent.; of the new gross demand of Rs. 2,76,600 the amount assigned and remitted is under 48 per cent., and more than 52 per cent. is recovered by Government. The increase in the recoverable demand is actually 68.6 per cent. It is true that Rs. 11,465 out of the khalsa increase of Rs. 58,596 do not accrue during the first three years of the currency of the new settlement. But, on the other hand, the progressive enhancements in Bar Miranzai will yield about Rs. 6,200 net when they fall due.

Eventually Government will recover something over Rs. 1,50,000 per annum in land revenue from the district against the previous income of Rs. 85,400. The considerable increase, which the Lieutenant-Governor anticipated has, I venture to think, been more than realised.

CHAPTER V.—REVISION OF THE RECORDS.

52. The field maps of the Kohát Tahsil and of Kuz Miranzai were prepared in 1875-76, the attestation of the measurements and record of rights

Maps.

being prolonged to the end of 1878. The Bárak maps were prepared in 1883-85, and the Khattak ones in 1891-93. Bar Miranzai as already noted was not measured at last settlement. All the old measurements were carried out by plane-table triangulation, and the scale adopted throughout was 60 *kadams* (380 feet) to the inch, i.e., 16 inches to the mile. The work was on the whole decidedly good, but the maps of the border villages in Kohát and Haṇḍu were incomplete, measurements being only carried to the foot of the hills and in some cases not even as far as that. Not only were the maps obsolete but the scale was too small and the minute fields of the irrigated villages could only be distinguished with difficulty. In Bárak where the original intention had been to measure the cultivated plots only, though it was eventually found to be necessary to survey the village boundaries, the work was rough. The Khattak maps were only 8 or 9 years old when the present settlement began, but were disfigured by a serious fault, viz., the clubbing together in single field numbers of a cultivated plot and its adjoining *banjar* whether culturable or not.

At this settlement it was decided to completely remeasure the Kohát Tahsil, Kuz Miranzai and Bárak. Bar Miranzai has been cadastrally surveyed for the first time. In level tracts the survey was carried out on the square system, a separate base 200 *kadams* (1,100 feet) long being laid out in each village, the area of the village being then covered with a series of squares in the usual manner. Where hills were encountered that the square laying could not get round, the plane table and sighting rod were resorted to, the triangulation being started off from the corners of the squares already laid. No attempt was made to work on a single base line for any part of the district. Apart from the utter impossibility of laying out correctly a series of squares over a large tract of land, the hilly nature of the country to be surveyed precluded the entertainment of any such idea. After marking out the squares and triangles on the ground up to the boundaries of the village, the field measurements were proceeded with strictly in accordance with the Measurement Manual.

The unit of measurement was the *kanál* with its sub-division the *marla* (20 *marlas* = 1 *kanál*). In this district 8 *kanáls* make 1 acre.

The scale adopted varied with the nature of the country and the cultivation. The general scale was the one now usually selected, viz., 40 *kadams* (220 feet) to the inch, or 24 inches to the mile. A scale of 60 *kadams* (16 inches = 1 mile) was considered sufficiently small for the large villages in the Thal Circle. But in very hilly country with no cultivation this scale was too large to give accurate results, and it was reduced to 80 *kadams* or more generally to 120 *kadams* (8 inches = 1 mile). In irrigated villages on the other hand a clear map could not be produced on the 40 *kadams* scale owing to the smallness of the fields. Here we had to resort to 20 *kadams* to the inch, and in a few places where the fields lie in long narrow strips three or four feet broad the map had actually to be drawn on the huge scale of 10 *kadams* to the inch or 96 inches to the mile.

The above remarks apply to the whole district with the exception of the Seni-Khwarram and Darra Circles. Here after having a careful examination made by means of trial squares (where possible) of the existing maps prepared in the recent Khattak Settlement, I decided, with the concurrence of the Settlement Commissioner, that remeasurement was not necessary. In a few small villages *tarmim*, or correction of the old map on new mapping sheets, was started before I joined the settlement. This was stopped when the villages in hand had been finished. The old maps were found to be accurate enough for all practical purposes and remain the maps of this settlement. A careful field to field inspection was carried out in Rabi 1902, and a new edition of the patwaris' copy of the map was prepared showing all the changes which had occurred and separating off cultivated from uncultivated land. The separate field plots showing all these corrections are filed with the new record of rights.

The original mapping sheets (*masāwīs*), coloured in the usual way, are filed in flat tin boxes in the District Kanungo's Office. The patwaris have been

Field maps.

supplied with tracings (also coloured up) of these maps drawn on tracing cloth. These copies they keep in tin cases (*nalkas*) and seldom refer to. They are, however, useful maps as they afford a much better idea of the cultivation in a village than a number of separate sheets of ordinary mapping paper. The tracing cloth is not, of course, very durable, but should last a considerable time with care and attention. Should any map become worn out and illegible a fresh tracing can easily be prepared from the original map filed at Kohāt. Where the hill area of a village and its cultivated area have been measured on different scales, separate tracings have been furnished to the patwaris of the general map of the village on the large scale, and of the cultivation on the scale used in mapping it.

For ordinary daily use, during crop inspections, &c., the patwaris have been given tracings on cloth. These tracings have the lengths of the field boundaries marked on them, and are complete but uncoloured. The patwaris will show the changes brought to light in the quadrennial attestations on these cloth maps, and their proper use should obviate the necessity for frequent references to the maps on tracing cloth.

From the field maps reductions were made by the patwaris to the scale of 240 *kudams* to the inch (4 inches = 1 mile) for all the villages. These reductions are coloured and show the main features of each village, cultivation, village site, roads, streams, water-channels, hills, ravines, &c. One copy of these index maps, as they are called, on English mapping sheets is filed with the field maps. Another copy on country mapping paper has been given to the patwari. It should prove very useful to officers visiting a village for inspection and other purposes. Its proper preservation on the part of the patwari should therefore be insisted on.

From the 4" index maps a reduced map on the scale of 1" = 1 mile is under preparation at headquarters. This map

One inch district map.

is on 13 sheets each 24" \times 18" in size

within the borders. The sheets as they are completed are being printed by the Vandyke process at the Survey of India Offices at Calcutta. This process is so simple and cheap that it is to be regretted that it has not been more generally adopted for settlement purposes in the Punjab. The results are infinitely preferable to the rough lithographic work usually accepted for *mujmili* or congregated maps. The 1" map referred to is a skeleton merely, in that no attempt is made to show the hills with which the Kohāt District is covered. It shows the village boundaries and trijunctions, the village sites and hamlets, the railway, roads, foot-paths, streams, main water-channels and tanks, the principal nullahs and such important points as police posts, salt posts, &c. It is, of course, being prepared in English, but it would be an excellent thing if, when it is completed, a copy with the names of the villages in vernacular were prepared and printed by the same process for the use of tahsildars, thanedars, and the numerous subordinates in the various branches of the district administration. Until this Settlement began there was no general map of the district or of the tahsils in existence. The Deputy Commissioner had the 1" topographical map made by the Survey of India after the topographical survey carried out in 1880-83 and the $\frac{1}{4}$ " reduction from the same published in 1886. But the subordinate officials had to get through any work requiring maps as best they could with rough sketch maps drawn more or less by eye from reductions of the village maps as occasion demanded.

From the 1" map again a further reduction is being made to the $\frac{1}{2}$ " scale, and eventually to the $\frac{1}{4}$ ". The $\frac{1}{2}$ " map

Reduced district maps.

will show the village boundaries and

other details mentioned above which appear on the 1" map. The district will be contained in four sheets each 24" \times 12" within the borders. This will, I hope, turn out to be a most useful map for ordinary administrative purposes. It can be coloured after being printed to show the boundaries of tahsils, thanas, kanungo and patwari circles and so forth, and being of a handy size can easily be carried about by officers on tour. The $\frac{1}{4}$ " map will be too small to show the boundaries of the smaller villages or the names of all the hamlets, but should be serviceable for general purposes and for reports.

I have to regret that for various reasons it has not been possible to complete this series of maps before I leave the district. But it has been arranged that the settlement mapper, who is a very neat draftsman and is now thoroughly conversant with what is required, shall remain at Kohát until the work is finished. The printed maps should be in the hands of the district authorities before the end of the year.

53. The field measurements were carried out by the district staff of Field measurements. patwaris assisted by settlement patwaris and patwari candidates. A small pro-

portion of the work was done by candidates for kanungoships and other higher posts under training during the settlement. Altogether at one time and another about 190 men of the patwari class and some 40 candidates of the higher grades were employed on measurements. These were supervised by kanungos, District and Settlement, and these again by the Settlement Naib Tahsildars and Tahsildars.

After a little very necessary preliminary training field measurements were commenced in the beginning of 1900. The Kohát and Hangu Tahsils were finished in the quarter ending September 1902, and the Teri Tahsil in June 1903. A little work connected with the measurement of the hills on the actual border of the district was carried out gradually later on with the co-operation of the Border Military Police. No difficulties worth mentioning were encountered.

The measurement of the southern slopes of the Samána Range had been Measurements on the Samána. left an open question when the settlement began. With the permission of the

Chief Commissioner measurements were carried out here in August and September 1904 with practically no trouble whatever. The crest of the hill had been admitted to be the boundary of British territory by the adjacent tribes in May 1891 after the Miranzai Expedition, and pillars had been erected along the line. All that remained to be done in the way of boundary demarcation was to define the limits *inter se* of the seven estates into which the land lying on the British side of the hill was divided, and to lay down the boundary between them and the Miranzai villages of Nariáb, Káhi, Balyamín, Bar Abbás Khel, Kotkai and Hangu. This I did myself on the spot, in the presence of all the people interested, early in September 1904. No appeals were ever preferred against my decisions. Along the border line itself I actually received petitions from tribesmen asking that their fields should be included in British territory and shown on the map and connected papers, and thus secured to their owners against the oppression of perhaps stronger men. The state of the border is much quieter now than it was at the time of the last settlement, but I have no doubt that the measurement of Bar Miranzai could have been carried out with equal facility by Captain Hastings in 1877-78. He indeed proposed to measure up the cultivation and had actually commenced work in Thal and Káhi, when orders were issued stopping him, owing chiefly to the opposition of Captain (Sir Louis) Cavagnari, the Deputy Commissioner, who was apparently sorry to see a Settlement taking place in the district at all.

At the same time that the Samána was being measured, measurements were safely carried out in the Chapri Wazirán plateau, south of Thal, a tract that had hitherto been regarded as a dangerous hunting ground for obnoxious Wazirs. I am glad to have this opportunity for acknowledging the co-operation of the several Deputy Commissioners who have held charge of the district during the currency of the settlement operations, and especially the cordial assistance always readily given by Mr. D. Donald, C.I.E., and the Border Military Police under him whenever delicate work on the border had to be undertaken.

The number of fields shown in the revenue returns in 1899 was 313,870.

Fields and "field numbers."

At the end of the settlement in 1905 the number was given as 421,970. A large

proportion of these consist not of fields in the ordinary sense of the term but of field numbers given to the hill area in order that the area might be calculated. Where feasible these hill "field numbers" were given by the squares on the mapping sheets. The patwari has an irrepressible desire to show as many fields as possible, in order to increase his ostensible outturn of work. Every effort was made to restrain him, but not always, I fear, with success. The

number of imaginary fields into which streams and water-channels used to be divided was reduced as far as possible by orders that water-channels held in joint proprietary right were to be given a single field number for as great a length as possible. Streams, which are nearly always "shamilat deh," were similarly treated. One point which should be noted about streams and nullahs is that where they form the boundary between two villages, the middle of the stream or nullah is according to the custom of the country the boundary. They have therefore been measured in as few field numbers as possible and both banks are shown in each village, half the area being allotted to each and a note being appended that a line down the middle is the boundary. This method gives rise to far fewer disputes when land is thrown up on either side of the class of stream we have in Kohát than the old system of covering the bed with a series of imaginary triangles and allotting the area of each triangle to the village adjoining its base; this old system in fact resulted in many obvious absurdities as to proprietary rights in land in beds of nullahs which were perpetuated on the village records, but to which no one paid any attention in practice.

There are 298 estates in the district, and the total area is 1,725,000 acres.

Size of "Estates.

The average area of an estate is therefore about 5,790 acres, and the average number of fields is 1,415. But there are some huge estates. The largest is Shakardarra with 98,560 acres; then come Shinewa Gudi Khel (61,915 acres), Thatti Nasrati (44,212 acres), and Latambar (36,260 acres); Togh (Hangu), Mahomed Khoja, Káhi, Nariáb, Darsamand, Gumbat, Nákband and Drish Khel have each between 20,000 and 30,000 acres; while there are 80 other villages with more than 10,000 acres in each. The largest villages are not always those with the greatest cultivated area. In this respect the first village is Thatti Nasrati with 20,566 acres of cultivation; then come Shinewa Gudi Khel with over 17,000 acres, Landkamar with over 10,000 and Latambar with over 9,000; all these villages are in the Thal Circle. Shakardarra has 6,475 acres of cultivated land; Teri has 6,005, and Chukára (another Thal village) over 4,000 acres; and there are 7 villages with between 3,000 and 4,000 cultivated acres. When we come to field numbers, Shakardarra again heads the list with 12,286 "fields." Káhi has also over 12,000 fields, this being due to the careful final *vesh* carried out by the people during Settlement and the consequent minute sub-division of fields. In Thatti Nasrati there are 8,800 fields, Darsamand has 8,135, Nariáb 7,536, Mahomed Khoja and Hangu each more than 7,000, Mahomedzai (Kohát) and Shinewa Gudi Khel each over 6,500, and there are 5 others with between 5,000 and 6,000 fields.

Special arrangements had, of course, to be made for the measurement of villages such as these. Shakardarra, for instance, was divided into 15 blocks, not all however requiring separate measuring parties. An enquiry was in fact made into the question whether this large tract could not be divided up into several separate villages. It was, however, found that the Ságri Khattaks had never recognised any exclusive ownership of their hill waste, and that the majority of co-sharers owned cultivated land in several of the different blocks. Forming these into distinct estates would have meant the useless repetition of a vast number of entries of ownership in each record-of-rights. The people did not express any wish for a partition, and there were no sufficient reasons for forcing one on them. As it is the number of khatauni holdings in Shakardarra is only 2,405, a number easily surpassed by some of the Thal villages, such as Thatti Nasrati with its 5,100 holdings, or Shinewa Gudi Khel with nearly 4,000 and Landkamar with 3,100, while Latambar with over 2,300 and the Bar Miranzai village of Darsamand with 2,100 holdings, form almost equally difficult charges for a patwari. The time may come when the people will, of their own accord, ask for a partition of their lands, but they are very churlish and, however embittered they may be with internal strife, they know full well that against outsiders "unity is strength." I am afraid also that our system of land records tends to stereotype the existing state of things, and militates against an otherwise useful simplification of rights of ownership in private property. Any claims for partition of these large villages should therefore be well tested before being acceded to, and no partition should be attempted without putting an experienced and trustworthy official of the Extra Assistant Commissioner class on special duty for the purpose.

These figures will explain how impossible it was to make attestation and completion of the records of rights keep pace with measurements. The mere *takmil* or checking and correcting of the field books and *khataunis* and the subsidiary papers, and the working out of totals of area agreeing in all the details in these large villages took an immense amount of time. This was finished by the kanungos in Kohat by December 1903, in Hangu by June 1904 and in Teri by December 1904. The final attestation by the Naib Tahsildars and Tahsildars was a business which in some of the large villages took a fortnight's or three weeks' hard and absolutely concentrated work. This was completed in Kohat and Hangu by September 1904 and in Teri by March 1905. The preparation of the *jamabandis* based on the new maps proceeded side by side with attestation, and within three months after the Tahsildars had attested the new records all the *jamabandis* were ready. In the meantime the distribution of the new revenue had been carried out. The Hangu *bachh* papers were ready by March 1904, the Kohat ones practically so, though four villages were not finished until May; the *bachh* papers for the whole of Teri were prepared in the end of 1904 and the first quarter of 1905.

The patwaris were assisted in their measurement work by chain-men and flag carriers provided by the zamindars. The cost of this to the people may be estimated at somewhat over Rs. 26,000. The decision of the Government to undertake this burden in the future came too late to relieve the people of this district, as it was only promulgated in July 1904.

54. Kohat is one of the few districts of the Punjab, which have never been surveyed by the Revenue Branch of the Survey of India. In the districts now in the North-West Frontier Province the Revenue Survey worked up the Indus to Bannu and also mapped Peshawar, but the proportion of cultivation to hill was doubtless too small in Kohat to make it worthwhile to do a large scale survey in the district. A topographical survey was carried out in the years 1890-93, after the Afghan War. This survey was done on the 1" scale and of course no notice was taken of village boundaries, even in those parts of the district where they had then been demarcated. There are, therefore, no professionally prepared village maps in existence, such as those on the 4" scale, with which the results of the patwaris' measurement work are usually compared.

In order to provide some check on the mapping done at this settlement, and to furnish some means of correcting the patwaris' work by that of the professional survey, a detachment of traversers, belonging to the Revenue Survey Branch, and called the Punjab Detachment, was sent to the district in the cold weather of 1899-1900, to make a traverse of the village tri-junctions. The results of this traverse were furnished to me in two forms: (a) a trace, on the scale 1" = 1 mile, showing the direct distances between tri-junctions in feet; (b) traverse plots, on the scale 4" = 1 mile, of each village separately, showing all the traverse stations taken up by the Surveyors. No attempt was made to traverse or triangulate the village boundaries, though of course as these run in many places along watersheds or are marked by prominent features, a considerable number of the traverse points did actually happen to fall on the boundaries. However, the 4" plots did not profess to give the areas of the villages, and I have not been able to apply any check to the areas arrived at by the patwaris. But in the matter of distances the traverse work afforded a very valuable check on the work of the patwaris. The process adopted was the following:—

As soon as the patwari finished the laying down of squares over a village surface, or the triangulation where the plane-table was used, and had fixed the positions of the tri-junction pillars, he had to send in a preliminary index map (*khaka*) with a statement showing the direct distances between the tri-junction according to his square-laying or triangulation. (The detailed instructions and form of statement will be found in the Settlement Commissioner's printed Circular No. 16.) These distances expressed in *kanals* (1 *kanal* = 5½ feet) were compared at headquarters with the distances given on the 1" trace mentioned above. Where there was a discrepancy exceeding 1 per cent. the *khakas* were returned for further check on the ground, and for explanation or correction of the differences. Though the internal measurement of the fields, &c., was proceeded with as soon as the square-laying or triangulation was finished, the outer boundary of a village was

not allowed to be inked in until the *khâka* had been accepted as correct. This work of checking *khâkas* was most laborious, and dragged on through the whole course of settlement operations. I found I had to do most of it myself, and I often regretted the elaborate nature of the scrutiny, which I had commenced and felt bound to complete. It took months to eradicate from the minds of the older class of settlement officials the notion that the presumption of accuracy was in favour of the patwaris' work as against the Survey, instead of the reverse being the case. The sacredness which, rightly no doubt, attaches to the "written word," including a previous map, in settlement procedure, was a great stumbling block. The subordinate officials were afraid that they would be called upon to produce explanations of discrepancies between the old and new boundaries of a village; such discrepancies are also to be deplored as giving an unscrupulous patwari a chance of starting a perfectly groundless boundary dispute between two villages. How inaccurate, on the other hand, the old maps could be amongst big hills, when no independent check had been available, was exemplified by the case of the Sarozai-Karbogha boundary dispute. Here a distance which was really six miles had in the rough *thakbast* of the Bar Miranzai Summary Settlement become exaggerated to one of eight miles. This discovery explained the difficulty experienced in reconciling the positions on the map and on the ground of the places mentioned in Captain Hastings' boundary decision. There were several other cases of big errors in the old maps (e. g. on the Kamardband-Surgul-Borakka boundary, all attempts to settle which on the old maps had had to be abandoned), but the Sarozai one was the largest that I can remember.

Eventually the patwaris and their supervisors of all grades came to recognise that it was really necessary and even simpler in the end to produce an accurate chart of a boundary as it existed, rather than to reproduce the line shown on the old maps. Some excellent work was then turned out, especially where the patwari triangulated on the large scales of 80 and 120 *kadams* to the inch. (Hill measurement on such a scale as 40 *kadams* to the inch is very difficult because so few stations come on to each mapping sheet.) I may instance the line across the Miranzai valley between Maiomed Khoja and Togh given by the traverse detachment as 7,203 *kadams* long, and returned by the patwaris as 7,220 and 7,214 *kadams*, respectively, the Kâhi-Nariâb line of 5,951 *kadams* in the same locality which came out exactly right, and in Bârak the Thatti Nasrattî-Shinewa Gudi Khel line of 6,882 *kadams* as 6,879 *kadams* in the former village and in the latter as 6,943 *kadams*. The longest line given me by the traverse party was the southern boundary of Shinewa Gudi Khel with the Isa Khel Tahsil of Mianwali, a distance of 17,386 *kadams* between the points adopted by the traverse; this distance on the patwari's map worked out to 17,549 *kadams*, a difference of only 163 *kadams* or less than 1 per cent.

While numbers of cases were detected in which the patwari was attempting to fudge his work, there were also a great many places where the traversers had not plotted the correct position of the tri-junction pillar; in some, where no stone had ever been erected or had disappeared, they were misled by one side or the other; in others the tri-junction had, through the laziness or dishonesty of the contractor and the carelessness of the subordinate revenue staff, been actually built on a wrong place. These were the cases that took time to check and pass orders upon. In several of them I found from the 4" plot that the correct position of the tri-junction had been taken up as a traverse station, but had not been plotted as a tri-junction. In such cases correction of the survey trace was easy. In a good many cases, however, my decisions on boundary disputes altered the old position of a tri-junction pillar, and a new one has had to be erected which, of course, cannot appear on the traverse charts. In addition to all this, there was the unfortunate circumstance that the traverse detachment finished its field work in March 1900, and left for its recess quarters in Mussoorie before I had become acquainted with the district or had fully realised what work they were doing. Along the Kohât and Hangu border the traversers only worked up to the old Settlement boundary line at the foot of the hills, and at Thal they did not go as far as the Kurram, because there happened to be no tri-junctions then built there; nor did they traverse Shakardarra. All this unfinished work was overtaken by a few men from No. 18 Survey Party, in the cold weather of 1905-06, but the computed results and the traces have not yet been completed and supplied.

The number of tri-junctions fixed by the traverse detachment was 690. Out of these 116 have to be altered for one reason or another, most of them being expunged altogether. There are 122 tri-junctions which are either new or were omitted by accident. The positions of nearly all the new ones have now been fixed by the recent traverse. The question whether a traverse ought to precede or succeed the settlement measurements, therefore presents some difficulties. If it precedes, alterations are sure to be found necessary; if it is done after the field maps are finished, a very valuable check on the patwaris' work is lost at the only time when it can be usefully applied. Personally I think there can be little doubt that where no traverse or similar data already exist, the professional work should always come first to provide a frame-work on which the patwaris' work can be hung.

The number of distances which could be compared in the foregoing manner was 536 in the Kohát and Hangu Tahsils and the Bárak Tappa, where we did measurement, and 231 in the Khattak tract which was not remeasured. The result of the comparison, abstracted from the usual register* prepared by villages, is as follows:—

	KOHAT, HANGU AND BARAk.		KHATTAK.	
	Number.	Percentage of total.	Number.	Percentage of total.
Number of distances in which the difference was 1 per cent. or less.	486	90.6	126	54.5
Number of distances in which the difference was between 1 and 2 per cent.	37	7.0	36	15.6
" "	2 " 3 "	1.0	29	12.5
" "	3 " 4 "	0.2	1	0.4
" "	4 " 5 "	0.2	9	4.0
" "	over 5 "	1.0	30	13.0
Total	536	100	231	100

*Note.—This register is filed with the settlement correspondence in the District Office.

In the remeasured tracts I think we may claim to have reached a high standard of accuracy. The results in the Khattak part of Teri, measured in 1893-95, are not very satisfactory. Here, there is no doubt that there are many errors in the maps of the hilly portions of the villages. A great deal of my time was taken up in deciding the directions in which the errors probably lay. All that could be done was to make a note on the margin of the maps of the presence of an error and its probable extent. It was not worthwhile remeasuring hill waste merely to eliminate the discrepancies, though in a few of the worst cases triangulation was done, and the results noted on the original map. I need not do more than invite attention to the difference brought about by my having been able to apply an effective check on the patwaris' measurement work while it was in progress.

The detail, with which I have discussed this subject, will not, I hope, be considered out of place. My reason has been that when the Kohát Settlement commenced, a somewhat heated controversy was going on as to whether patwaris could produce anything like accurate work in hilly tracts. The burden of proving that they could was more or less thrown on the Kohát establishment. The figures given above show how far we have succeeded in the attempt. In flat countries there is no reason why patwaris should not produce results that are absolutely accurate. Amongst hills, if the work is kept within rigid limits and they are allowed to use appropriate scales, they can with the plane-table and sighting-rod map village boundaries quite accurately enough to enable them to be incorporated on Survey sheets without the expense of a professional survey. The patwari cannot, however, produce a topographical map of a hilly country, nor is that his business. In perfectly flat places, there is little topographical detail which the patwari does not incorporate in his map, and still less which he could not show if he were told to.

It may be doubted whether we made sufficient use of the material the Survey Department could have supplied us with. In a few hilly villages, such as those in the Lawaghar Range, the patwaris made their maps on sheets on which all the traverse points had been plotted at Mussoorie. The mapping was done very rapidly and accurately, but the basis of it was all triangulation. In some other villages in which I wished to try this, the traverse points were too far apart to be of any assistance to the patwari. In one village (Gumbat) I tried the experiment of building squares on a line between two traverse points, but no advantage was gained for the square-laying; in the end an almost inevitable discrepancy appeared. With the experience I have now gained I would certainly use properly plotted sheets much more freely than I did, and would be prepared to discard the fear of patwaris scamping their field measurements. But the ground work of all such mapping would have to be triangles not squares. The results given by square-laying in flat country, where it is confined to small tracts, such as a village, are all that can be desired, and there is no doubt the average patwari produces more accurate field maps upon squares than on triangles and that his work is more easily checked. But the system is incompatible with making the fullest possible use of professional data. The orders in force for the settlement measurement of the Kohat District prescribed the use of the square system, and this being so, I do not think we could have made much more use of the traverse data than we did.

The 1 inch traces showing the true positions of the trijunction points are being used, corrected where necessary, as the basis of the 1 inch district map referred to in paragraph 52. This map should therefore be much more accurate than the congregated map usually produced at the end of a settlement, in which one village is built on to the next. The Kohat map starts with a rigid skeleton which assigns each village its proper place on the mapping sheet. All that remains to be done is to fit in the village boundary and fill in the internal detail. No cumulative error is possible.

When the settlement began, it was hoped that with the help of the traverse data the now cadastral maps might be used to bring the topographical map of the district up to date, by showing changes in inhabited sites, roads, water-channels and such other details. For this purpose English copies of the 4-inch index maps have been prepared on tracing cloth for the use of the Survey Department. Orders have, however, lately been issued for a new topographical survey of the whole district, to be commenced next cold weather. These tracings will now be of little use, and there is no necessity to send them to the Survey of India. They have been filed in the district office and will be available for the topographical party to refer to if necessary. Combined with the new village directory, they will give them the correct names of the villages and hamlets, and from them a copy of the topographical map showing village boundaries can be easily prepared.

55. Preliminary steps towards the revision of the main portion of the

The standing record of rights.

record of rights, the *jamabandi*, were taken in 1898-99 by the

deputation of a Naib Tabildar and a few kanungos to clear off mutations. Detailed *jamabandis* were prepared for the whole district for that year. This was the document we had to revise. I cannot say that the work done in 1898-99 was satisfactory; in a few villages it was worse than useless.

While the settlement was in progress, the number of mutations which came to light and were attested was—

1899-1900	...	...	...	11,917	1902-03	...	...	...	22,605
1900-01	...	...	...	17,186	1903-04	...	...	...	22,478
1901-02	...	...	...	19,110	1904-05	...	...	...	6,891

The total number of mutation attested was 100,187. At the end of September 1905, by which time all the new records of rights for the district had been filed, there were less than 600 mutations awaiting attestation.

A few *jamabandis* were prepared immediately after the completion of measurements, but they were so few and the villages so small and unimportant, that it was thought advisable to prepare them afresh, so that all the records for the villages in each tahsil might date from the same year.

The new standing record of rights is that of the year 1903-04 in the Kohát and Hangu Tahsils, and of 1904-05 in the Teri Tahsil. It contains the following documents :—

- (1). The preliminary proceeding (*robkar ibtidai*).
- (2). The genealogical tree (*shajra nasab*).
- (3). The *jamabandi* with alphabetical index of the landowners.
- (4). List of revenue assignments and pensions (*fihrist muáfiát*).
- (5). Statement of rights in wells (*naqsha haqqiq cháhát*).
- (6). Statement of rights in mills (*naqsha haqqiq jandarát*).
- (7). Order of Settlement Collector determining the assessment (*hukm tashkís*).
- (8). Acknowledgment of announcement of the assessment (*ilánáma zamindárán*).
- (9). Order of Settlement Collector distributing the assessment over holdings (*hukm báchh*).
- (10). Statement of customs respecting rights and liabilities in the estate (*wajib-ul-arz*).
- (11). Statement of custom respecting irrigation (*riwaj-i-abpáshi*).
- (12). Mutation sheets attested and incorporated in the *jamabandi* (*intiqalát manzúr shuda*).
- (13). The field map (*shajra kishtwar*).

The field map is as already noted filed separately, and where the mutations are at all bulky they have been bound up in separate volumes.

These various documents were prepared in accordance with the rules under the Land Revenue Act, and there is nothing particular to be said about them. I may note however with regard to the *shajra nasab* that special care was taken to distinguish between the rights in the common lands (*shamilat-deh*) possessed by ancestral owners (*malikan jaddi*) and by purchasers (*malikan-zar-kharid*).

The *jamabandi*, when completed, was read out to the assembled zamindars in each village by a Naib Tahsildar, and opportunity was then given for the disposal of any objections that might be raised. Each landowner has been given a small book (*yarcha bahi*) showing the details of his land and the revenue now due on it. In this book there are spaces for receipts from the lambardar for the revenue payable each harvest during the currency of the settlement, and also for any changes in ownership that may take place. If the landowners will only have these *parchas* kept up to date by the patwari, which the latter is bound to do free of charge, each revenue payer should have no difficulty in knowing what his obligations are.

I have now to ask for formal sanction to the new record of rights. It is I think complete and up-to-date. Probably the best records are those of Bar Miranzai, where such documents have now been prepared for the very first time, and those of the Bárak Tappa in Teri where the preparation was specially well supervised by the Taligildar and Naib Tahsildar. While the record was under preparation there were, I am informed, no signs of any extensive litigation about land being stirred up. If the number of appeals lodged against mutation orders be any criterion of accuracy, and not of apathy on the part of the people, this portion of our work was very satisfactorily carried through. I had to decide only about 70 mutation appeals* during the six years. The labour of this long

*Total number of appeals of all sorts was 82 only.

settlement would indeed have

been thrown away if a much more accurate record than they possessed before had not been provided for the people. That has been the main object kept in view throughout, and I trust that it has been attained.

56. The revision of the village administration paper or *wajib-ul-arz* was

The village administration paper.

carried out by Lala Ganga Sahai, Extra Assistant Settlement Officer. The old

Kohát, Hangu and Bárak records contained much matter that has since been provided for by law, such as customs regarding the rights of tenants to effect improvements or to contest ejection, the disposal of the effects of outlaws, the customs in force as to inheritance, pre-emption and the like. All this had to be cut out. The remaining material was then recast under the eleven heads men-

tioned in Land Revenue Rule No. 203 (as amended in 1894.) The Naib Tahsildars attested the record of customs as it then stood in the villages, and noted any points in regard to which the people asserted that the previous record was wrong, or that a custom had been changed. The *wajib-ul-arz* of the more recent Khattak Settlement did not require recasting, but was re-attested on the spot in a similar manner. The Extra Assistant Settlement Officer then attested the results of the Naib Tahsildar's work in every village in the presence of the people and decided any disputed entries he could under Rule 203 (c). A few cases arose in which the people wished a change made in the previously recorded custom, but could not point to a judicial decision in favour of their new entry. In such cases no change was made in the record unless the parties interested were unanimous, but a note explaining the point at issue was added to the old entry, wherever the proposed change was not purely frivolous. The custom which the people most frequently wished to dispute was the long established one which recognises joint grazing in hill waste by adjoining villages. A temporary disagreement between two villages was not admitted as sufficient reason for disturbing this salutary custom. As a rule the opposition to the entry arose from a dog-in-the-manger desire of a village which has grazing to exclude less fortunate neighbours. But the tradition of the original tribal occupation of the different tracts of the district is ample warrant for maintaining the joint user of the extensive, though poor, grazing grounds in the hills.

When the Extra Assistant Settlement Officer had finished his attestation and orders had been passed regarding all disputes, real or imaginary, the record of customs was fairied and attached to the *jamabandi*. The original files of the attestation proceedings are all filed with the village papers in the District Kanungo's record room.

One important matter in connection with the *wajib-ul-arz* was left for discussion until the close of settlement operations in order that the light of greater experience might be available. This was the custom regulating the cutting and sale of *mazri* or the dwarf palm, a most valuable product possessed by many villages but not by all. This custom I attested myself for the villages in which the subject is of importance at Hangu in March 1906, when I endeavoured to guide the people into executing agreements tending to conserve the plant which has of late years suffered greatly from ruthless cutting down, especially since the railway cheapened the cost of exporting it. Mr. Tucker, in paragraph 202 of the Kohat Settlement Report, mentions that in 1882 he got rules framed with this object in view, but he added that "rules of this sort are seldom very strictly observed." Unfortunately the rules were not incorporated in the village administration papers, and were entirely lost sight of. The people collected before me professed never to have heard of any such rules. They were, however, very anxious to agree to restrictions being placed on wanton destruction. The results of the discussion may be briefly summarised. *Mazri* has been declared to be the property of the joint proprietary body of the village in which it grows. Outsiders have no right to cut it for any purpose without the sanction of the owners. All residents in the village, including tenants and artisans, &c., may cut *mazri* within reasonable limits for their own household use which includes the making of such articles as shoes, ropes, string for beds, mats and matting for roofs of houses, nets, bags and baskets for grain, &c. Only with the consent of all the proprietors can *mazri* be cut for sale, and in many villages such cutting is restricted to occasions of urgent necessity. The proceeds of such sales belong to the community of owners, and may not be appropriated by individuals. Several villages have instituted close seasons, varying from 3 to 6 months, in the summer when all cutting for sale is prohibited, so that the plant may grow properly.

These agreements, having been signed by the lambardars, have been incorporated in the *wajib-ul-arz* of the villages concerned. An abstract of them has been prepared, and will be printed as an appendix to the volume of Customary Law (*Riwaj-i-am*). This will, it is hoped, facilitate their enforcement, and at any rate defer the dis-appearance of the plant. I may remark that this is a matter in which public opinion will always support the protection of the common interests against encroachment by individuals such as Khans or powerful lambardars. Any villages, for whom agreements have not been drawn up, and who wish to adopt similar rules should be given every opportunity for doing so.

57. The value of the water available for irrigation in the Kohát District
 simply cannot be estimated. According
 Record of rights in irrigation. to a Pathan proverb there are four good

things in life:—river water, wheat on unirrigated land, weeping (wet) rice, and the strength of a young man. As we have seen already it is only along the northern edge of the district, that there is any extensive perennial supply of water. Round the pleasant little oases of Kohát and Hangu and in the China Circle there is to all appearance an abundance of water. But the whole of it has been allotted to specified lands by ancient custom, which has prescribed a distribution now almost bewildering in its minuteness. The regulation of this distribution, in accordance with recognised custom, is a duty which has naturally devolved upon the local officers and upon the careful and impartial discharge of this duty depend the contentment and prosperity of a large number of people not to mention the preservation of the peace between the right-holders. There are few more common sources of riots and bloodshed than interference by one man in another's water-rights.

It is at first difficult to understand the complicated arrangements which have grown up around the distribution of the limited supply of water available for the quantity of land which might be commanded by it. But when the main principles of the original allotment by tribal and ancestral shares between villages are grasped, it is fairly easy to follow the details of the internal distribution. An accurate record of these customs is obviously of the first importance to the Deputy Commissioner in controlling the irrigation and in settling disputes. Excellent statements were prepared at last settlement, under Mr. Tucker's orders, describing for each village the irrigation system then in force, and giving in detail the arrangements for the distribution and division of the water inside the village. These were accompanied by small scale maps showing the canals and smaller channels and formed part of the Settlement Records. Mr. Tucker's own decisions, passed while he was Deputy Commissioner from 1881 to 1884, formed the basis of many of these statements. Like his work in the Búrak Settlement, these decisions are still constantly referred to by the people as the starting point of their rights. A good deal was done to further define irrigation rights by Captain Rawlinson, Deputy Commissioner, in 1896, assisted by an experienced Tahsildar, the late Gopál Saran Dás. English translations were then prepared of the vernacular *riwaj-i-abpashi* of most of the more important villages in the Toi and China Circles.

The revision of this important record of custom was carried out by Lala Ganga Sahai in the same way as that of the *wajib-ul-arz*. The records of the villages were examined to see if there had been any judicial or executive decisions regarding irrigation. The old *riwaj* with the results of such decisions incorporated was attested on the spot by the Naib Tahsildar and then by the Tahsildar, and finally by the Extra Assistant Settlement Officer. Disputes and doubtful points were referred to me for orders, and have I think all been disposed of. In a few cases where the former distribution of water had become unfair, and the people asked for a change, regular enquiries were held and suitable orders were passed.

The record of irrigation customs has now been arranged under the following heads:—(1) source of irrigation; (2) internal distribution; (3) clearance of and repairs to water channels; (4) mills; (5) sale of water; (6) changes in the water-courses; (7) watch and ward; (8) *jhallars*; (9) aqueducts; (10) bridges. Lala Ganga Sahai has prepared abstracts in English of all the village records, and from them he has compiled general abstracts (*kuliyat*), also in English, of the system of distribution from the main water-channels, such as the Kohát Springs channel, and the Najoya and Jhang Kattas. Maps to illustrate the *riwaj* have been incorporated with them in the records of rights. The English village abstracts have been bound up in volumes by assessment circles for the use of the Deputy Commissioner. The general, abstracts will be printed as an appendix to the *riwaj-i-am* for facility of reference.

This record has been prepared not only for all villages containing land classed as irrigated, but also for those villages, chiefly in the Teri tahsil, where the *bandiza* system of watering land is of importance. In some of these villages the distribution of the flood water is complicated, and it is just as precious to the people as *abi* or *chashmai* irrigation. In villages where the *bandiza* area is small,

or where the rights in the *bands* and channels are simple and a few sentences in the *wiib-ul-urz* suffice to explain the system, no separate *riwáj-i-abpáshi* has been prepared.

Lála Ganga Sahai deserves great credit for the way in which he carried through this laborious work, much of which he did after his transfer to the Kurram Settlement in addition to his duties there. The results will, I hope, prove extremely valuable to future Deputy Commissioners, and relieve them of much trouble in the management of the irrigation system of the district. At present this management is carried out under the executive authority of the Deputy Commissioner. During the settlement operations it was arranged that I should take the Deputy Commissioner's place in this respect. Persons offending against the record of customs are punished under the Land Revenue Act. It is I believe contemplated to introduce a Minor Canals Act or Regulation in the North-West Frontier Province to regularise the authority thus vested in the Deputy Commissioner. Should it be necessary to frame rules under such an Act, the English abstracts now prepared ought to render the task an easy one. I would only add that the fewer and simpler the rules are the better. It is necessary that the Deputy Commissioner should not be hampered in a work which the people look to him and to him alone to superintend on their behalf. It will be a blessing to the people if they are precluded from bringing suits regarding irrigation customs in Civil Courts. The results of a few such cases that I have seen fought through a series of Courts not conversant with the local customs and unable to verify facts on the spot, have been truly pitiable.

58. Vernacular village note-books were started in the Kohát and Hangu tahsils from the year 1884-85, and the

Village note-books.

space in several of the registers was therefore completely exhausted before the end of the settlement operations. In the Bárak Tappa they were introduced from 1887-88 and in Khattak from 1891-92 only. With regard to the bilingual note-books, the orders issued in 1897 were that in this district entries should be made in the existing tahsil copy of the vernacular note-books in English numerals until the books were filled up, when new bilingual note-books would be introduced simultaneously throughout the district. Thus new note-books had now to be introduced for the whole district. The stereotyped form of village note-book gives no means of showing the cultivation on the various classes of irrigated and unirrigated soils recognised in the re-assessment proceedings. Special vernacular and bilingual note-books were therefore printed, containing space for entries in the *milánraqba* and the *jinswárs* for the 9 soils now uniformly recorded in the village papers throughout the district. The opportunity was also taken to expand the *jama wásil báqi* statement (No. 4) so as to give space for showing the *malikána* on Crown lands, mill revenue, and *talukdari*, *tirni*, and *luu* in Teri. The changes made in these statements are only in the direction of giving extra information which will be useful to the Collector and at future assessment operations. The information required for provincial statements can always be readily obtained.

These new note-books have been introduced from the year 1901-02 in the Kohát and Hangu tahsils, from 1902-03 in Teri and from 1904-05 in the small Saména Circle. In the *jinswárs* the first entries show the average area of crops harvested during the 18 years in Kohát and Hangu, the 16 years in Bárak and the 12 years in Khattak, for which the figures were available in the old note-books. The second entry gives the averages for the five years accepted for the statements in the assessment reports, viz., 1897-98 to 1901-02 in Kohát and Hangu, and 1898-99 to 1902-03 in Teri. The *milánraqba* starts with the last of these years, and the other statements from the first year of the introduction of the new assessments, viz., 1903-04 in Kohát and Hangu and 1904-05 in Teri. Any one wishing to refer to the note-book can therefore see at a glance the condition of the crops and cultivation of a village before the re-assessment, and the statistics on which that re-assessment is based, as well as the subsequent results. The vernacular note-books are kept by the patwaris. The bilingual note-books are kept in the tahsils by the office kánungos. The latter are an exact copy of the former, except that the entries are made in English numerals. Bilingual note-books are also maintained for assessment circles and tahsils as a whole, and of these the district kánungo keeps up copies also, besides compiling one note-book for the whole district. All these registers have been carefully written up and are complete and up to date. The volumes, as bound, contain space for entries for 30 years.

59. The prescribed form of statement for the abstract village note-book or *pargana* book has also been departed from to a slight extent. A copy of the form now in use will be found printed as Appendix No. II to this Report. This statement was sanctioned by the Revenue Commissioner, North-West Frontier Province, in his letter No. 5410, dated 18th November 1905. The main points of difference between it and the form given in the Revenue Circular No. 30, as issued for the North-West Frontier Province, are:—

(a) in column 5 the total area sown in both harvests is given; this is a matter of some importance both in villages with a large dofaasi area, and in those in which certain areas are cropped in biennial or triennial rotation owing to scarcity of water: (b) in columns 20—24 frontier remissions and inams by way of favourable assessment (on Crown lands) are deducted from the revenue, and the instalments of the recoverable amount are shown: (c) in columns 25—27 the average incidence of the recoverable revenue on the harvested area for the whole year is given, as in many villages the instalments are not in any way proportional to the harvests; if the people choose to pay half their revenue in each harvest, when their usual crops would show one-third and two-third, or one-fourth and three-fourth as the true proportions, they do not thereby become entitled to suspensions nor need their condition cause any anxiety; in such cases the annual incidence of the revenue is material: (d) columns 28—30 the column showing realizations of suspended revenue enables the statement to show the continuous revenue history of a village: (e) rent on Crown lands due as malikana and the revenue on water-mills are shown in columns 31—33: (f) on the back of the form are given five small statements showing the statistics used in calculating the revised assessment; these were got together with some trouble, and will be useful to the Collector from time to time.

The entries in the new abstract note-books are being made from the year 1900-01, in order that the first quinquennial average may be calculated for the five years ending 1904-05, the period prescribed for the whole Province in Circular No. 30. These forms were so recently printed and bound up in volumes that the entries are not yet complete. The material required is, however, for the most part ready, and the copying should not take long.

Before the statement of each village a map of the village has been bound into the *pargana* books. These maps have been prepared from the index maps on traverso paper cut to foolscap size, and the scale on which each is drawn varies according to the size of the village. They will, I hope, prove useful to officers inspecting villages. The sketches I made at the time of my village inspections were too rough to be of any use to any one but myself. But the notes I made for assessment purposes are all bound into the *pargana* books in original, as are my notes of the announcement of the new assessment and the *bachh* rates. A few miscellaneous notes have been added in certain cases. These notes explain the constitution of the villages, and should, I venture to think, be of use in a variety of ways when questions arise about outlying villages. Their usefulness will, of course, be much enhanced if Deputy Commissioners will make short notes of any particular events occurring to affect the history of an estate, not only for assessment but also for general purposes. To this end the volumes should not, I think, be buried in the tahsils, but kept at headquarters. They are bound up as far as possible by circles, but the larger circles had to be split up for convenience of handling. There are altogether 18 volumes of these abstract village note-books.

60. No English abstract of the vernacular *riwaj-i-am*, or record of Tribal Custom, was drawn up at the previous settlements. The vernacular records

had now to be collated and the questions and recorded customs arranged in the order given in Mr. (Sir Lewis) Tupper's work on Punjab Customary Law. Representatives of the main tribes were then collected at various convenient centres by Arbâb Mir Ahmad Khân, Revenue Extra Assistant Commissioner, during the winter of 1905-06. The results of his attestation form the revised *riwaj-i-am*, a faired copy of which in vernacular has been lodged in the District Office. Copies have been supplied to the District Judge, the Divisional Judge and the Judicial Commissioner of the North-West Frontier Province. An English abstract is under course of preparation. It will eventually be published as a supplementary volume to the "Punjab Customary Law."

In the volume of the *riwaj-i-am*, to be published, it is proposed to include as appendices for handy reference, abstracts of the customs relating to irrigation and *marri*, the rules governing grazing by trans-border tribes within the district, and the rules for the recovery of *tirmi* and *buha* by the Khân of Teri within his tahsil.

CHAPTER VI.—MISCELLANEOUS.

61. A detailed report on the Crown lands in the district was furnished in November 1905. The orders of the Chief Commissioner are contained in his

Crown lands.

Revenue Secretary's letter No. 256, dated 18th January 1906. The correspondence is in print and orders have been given that it is to be bound up with the Kohát-Hangu Assessment Report as an appendix. A very brief reference to the subject is therefore all that is necessary here.

Omitting lands occupied by cantonments, roads, public buildings, encamping grounds, &c., Government is the owner of 41,879 acres in 9 villages in the Kohát tahsil, and of 27,316 acres in 12 villages in the Hangu tahsil. Out of the total area of 69,195 acres 9,820 acres are cultivated. The land revenue assessment on these lands was in the first place imposed on the usual principles, as if they had been ordinary *zamindári* lands, and amounted to Rs. 18,637 (Rs. 11,214 in Kohát and Rs. 7,423 in Hangu). In the Teri tahsil the Khán of Teri in virtue of his position as Khán and jagirdár naturally takes the place of Government, and enjoys a life interest in nearly 27,000 acres now assessed at about Rs. 3,600. The Crown lands in the villages of Khwája Khizar (Tahsil Kohát), Gándiáli-Bálá, Khwája Khizar (Tahsil Hangu), Hangu, Wrasta Hájji Khel, Mardu Khel, Chappar, Sarki Pehlá, Bagattu, Lakhti and Khalifa are leased direct to the tenants for the term of settlement, subject to good conduct, on payment of the revenue and cesses plus a *malikána* of 12½ and 25 per cent., payable by occupancy tenants and tenants-at-will respectively. Occupancy tenants having rights under Section 5 of the Tenancy Act have the rights of alienation conferred by the Act; other occupancy tenants and tenants-at-will have no legal right of alienation, and transfers by them are voidable, when advisable, by the Deputy Commissioner.

The Crown land in the village of Shahpur is leased to K. B. Malik Ján, Kiyáni, for his life-time, but out of the revenue of Rs. 5,051 assessed on it, the sum of Rs. 1,500 has been remitted for three years from Kharif 1903, the remission to be reduced to one of Rs. 1,200 from Kharif 1906; the amount of the future remission will be determined when the lease comes to be renewed after the death of Malik Ján.

The village of Chembai is also leased to Malik Ján for his life on payment of the full revenue, Rs. 1,200 and cesses; on his death the lease will be at the disposal of Government.

In the village of Togh (Kohát tahsil) Government owns a quarter share, called *kandi* Juni Khel. This has been leased from Rabi 1905 to Mir Álam Ján, son of the late Shahzada Sir Sultán Ján, for his life-time or the term of settlement, whichever terminates first, at a rent equal to the full revenue Rs. 864 and cesses, plus a *malikána* of 8 annas per rupee, subject to loyalty and good conduct.

The lease of some 55 acres of Crown land in Bábar Mela is shared between Sayad Halim Sháh of Hangu and the lambardárs of the village on behalf of their fellow villagers, on payment of the revenue Rs. 248, minus a frontier remission of 4 annas in the rupee for the term of settlement, the share of Halim Sháh being liable to reconsideration on his death if previous.

A plot measuring 2,117 acres in Borakka is leased to Mian Ghufúr Sháh of Kohát for his life or the term of settlement, whichever terminates first, at the new assessment of Rs. 250. The remainder of the village area is kept as a grazing ground or fuel and fodder reserve. Some villages near Kohát have rights of grazing and cutting wood, and in the cold weather Afridi immigrants settle here. The latter pay *tirni* at the same rates as the Ghilzai graziers who are allowed into the district between November and March, and also a small hut tax (*bua*).

Rakh Topi in Shakardárra, and Chapri Wazirán beside Thal are also kept as grazing *rakhs*. The former is leased to certain lambardárs of Shakardárra for Rs. 200 per annum (one-fourth of which goes to the Khán of Makhdad as his jagir), the Deputy Commissioner having power to change the lessees when necessary. In the latter the Kábul Khel Wazirs are allowed to graze on condition of good behaviour, subject to the payment of an annual lump sum of Rs. 50 as *tirni*.

The land in Kurd and part of that in Khwája Khizar (Kohát) forms the Cantonment Grass Farm, under the management of the Officer Commanding the Cavalry Regiment at Kohát, and is not assessed to revenue.

The lease of the remaining village, Jarma in the Kohát Tahsil, has hitherto been held by Mian Sikandar Sháh, to whom about one-fourth of the village has been granted in proprietary right. Orders as to the terms on which the lease is to be renewed to him under the new assessment have not been received yet, the question of his indebtedness being still under discussion.

As to the *mazri* growing in the Crown estates rules have been framed allowing to the tenants the exercise of rights of user similar to those agreed to by the zamindárs for their proprietary lands (*vide* paragraph 56). These rules have been sanctioned by the Chief Commissioner in his Revenue Secretary's letter No. 2250, dated 19th May 1906 and an abstract appears as an appendix to the *riwáj-i-ám*.

62. These forests, or rather tracts of scrub jungle, though situated in the northern *tappa* (Zira) of the Kohi Circle, are managed along with the adjacent and more valuable Khwarra forests by the The Zira forests. Deputy Commissioner of Peshawar. The Kohát villages in which the forests lie are those along the Peshawar border—Darsha Khel, Manduni, Torastani, and Sen. The forests are the joint property of Government and the zamindárs without detail of shares. A thorough enquiry into their condition and future management was started in the Peshawar Settlement in 1896. This culminated in the issue of Punjab Government Notifications Nos. 468, 469, 470, 471 and 472, dated 30th August 1901. Under these orders certain blocks in the forests were declared "protected forests," and are closed for the term of the present Peshawar Settlement except as regards (a) the pasturing of cattle, other than goats and camels, belonging to the villagers in the Khwarra and Zira *tappas* recorded at the last Kohat Settlement as enjoying rights in the waste lands of the *tappas*, or to persons who have been subsequently admitted to such rights by competent authority, and (b) the cutting of grass by the said villagers and persons. All the other rights of the villagers recorded at the Kohát Settlement, including the right of pasturing goats and camels, are suspended for the same term within the blocks. The boundaries of the blocks were defined and were restricted to the more valuable portions of the forests. Inside this area all trees are reserved, and the burning of charcoal, the collection and removal of any forest produce, and the breaking up or clearing of land are forbidden. Subsidiary rules lay down the conditions under which zamindárs of the villages in the Khwarra and Zira *tappas* may cut and remove trees and timber for domestic use from the area in the forests but outside the blocks, and under which they can obtain licenses to trade in forest produce such as charcoal, small timber, firewood, grass and reeds or canes.

As the establishment engaged in guarding the forests and in working these rules is controlled from Peshawar, I have no knowledge at first hand of how far the management is successful in combining good conservancy with a minimum of harassment of the people. The officer in charge is at present the Assistant Commissioner at Nowshera, to whom the greater part of the forests are much more accessible than they are from Kohát. This leads me to suppose that the management is more efficient now than it was before the transfer of Khwarra to Peshawar in 1896. I make these remarks because I have been instructed in paragraph 2 of the Punjab Government letter No. 400, dated 25th July 1901, to leave on record my opinion as to the ultimate destination of Khwarra and Zira, that is to say on the questions whether Khwarra should be retransferred to Kohát, or whether Zira should be transferred to Peshawar, or whether the present arrangement should be continued. Some time ago I consulted Mr. Clark, then Deputy Commissioner of Kohát, who had just come from acting in a similar capacity at Peshawar, as to whether any inconvenience resulted from the present arrangement, and he gave it as his opinion that there was none. Under these circumstances, as the Niláb Ghísha is, in my opinion, the natural boundary between the two districts, and the present arrangement seems to work as well as, if not better than, any other that could be substituted for it, I think the existing division of territory between the two districts should be maintained. The retention of the small block of reserved forest in Zira as such should depend on the success attending its management. Others can judge of that better than I can. It is certainly not worth managing apart from Khwarra even were that feasible.

63. The dues received by the Khán of Teri as Chief of the Khattaks have been mentioned incidentally at various places in this report.
(a) *Talugdári*. It may be convenient to summarise the present position in regard to their collection.

Talugdári is an allowance introduced at the time of the Bárak Settlement in order to recognise certain prerogatives, distinct from those of an ordinary *jagirdár* or *istamrardár*, and not easily distinguishable from rights of over-lordship, which the Punjab Government held that the Khán, or Nawáb as he then was, had undoubtedly been exercising as Chief of the Khattak tribe. The allowance took the form of a percentage out of the land-revenue, and was declared to be an imitable property to descend integrally along with the Khánship to the Khán for the time being. The percentage was fixed at Rs. 9-6-0 per cent. or 1½ annas in the rupee. The land-revenue assessment imposed at the Bárak Settlement was accordingly divided into land-revenue proper, and *talugdári* at this percentage. In the Khattak Settlement, these orders were apparently misunderstood and the *talugdári* allowance, which was sanctioned here on the same terms as in Bárak, was superimposed on the full land-revenue assessment, instead of being considered a portion of it. At the present Settlement *talugdári* has been maintained on the lines originally fixed in Bárak (*vide* paragraph 13 of the orders on the Teri Assessment Report). When announcing the assessments of the villages in the tahsil, I informed the people, in each case, what their total assessment was, and the proportion due as land-revenue proper and *talugdári*. No cesses are payable on the latter sum. Akor Khels are exempt from the payment of *talugdári*, and on lands which they hold in *muafi* or in *jagir*, they are entitled to the full assessment including the percentage due under this head. This rather conflicts with the imitable nature of the allowance, but the exemption was expressly granted at the Khattak Settlement and has now been maintained. The Khán cannot interfere with the exemption as regards the ancestral holdings of the Akor Khels without the permission of the Government.

The amount of the *talugdári* allowance in the new assessment of the tahsil is Rs. 10,128, leaving the land-revenue proper at Rs. 97,904. The *talugdári* on lands owned by Akor Khels, or held by them in *jagir*, comes to Rs. 1,760-8-0, of which Rs. 1,688 would, but for these orders, be due on *jagir* and *muafi* lands, and Rs. 72-8-0 on lands (chiefly in the Teri village) which are not held revenue free. But out of the former sum Rs. 363-8-0 are due on the land which attaches to the Khanship or owned by him privately, and the deduction of this amount is of course nominal. The *talugdári* allowance is therefore worth Rs. 8,731 to the Khán. The Akor Khel *jagirdárs*, most of whom are his immediate relatives the descendants of Nawáb Sir Khwája Mahomed Khán, collect Rs. 649 on their *jagir*, lands and Rs. 748 are not collected at all on the land owned by them. Put in tabular form the distribution of the *talugdári* allowance now in force is —

	Rs.	a.	p.	Rs.	a.	p.
Collected from the Khattaks	8,367	8	0	8,367
Due on the Khán's land	363	8	0	363
Collected by Akor Khel <i>jagirdárs</i>	649	0	0	649
Exempt on Akor Khel lands	748	0	0	748
Total	...	10,128	0	10,128	0	0

These three dues are the only ones out of the many petty exactions which the Kháns of Teri used to levy from their tributaries, when they were strong enough to be able to enforce them, that have been recognised by Government.

Tirni is a grazing tax paid on camels, sheep and goats. Cattle, horses, donkeys and mules have never been liable in Teri. The rates are light, *viz.*, sheep and goats over six months of age, Rs. 10 per 100 head per annum; camels over two years of age Re. 1-8-0 per head per annum; camels between one and two years of age pay half this rate, those under one year being exempt.

Bua is a house tax paid at the rate of Rs. 2 per house by non-agriculturists, *i.e.*, by the trading and menial classes.

(b) *Tirni, bua and kuhári*.

Kulhari is a tax of Re. 1 per axe on the wood-cutters in the eastern portion of the Lawaghar range, who supply fuel to the alum factories in the Isa Khel tahsil on the south side of the Chichali Pass.

The organised agitation, from 1896 onwards, against the payment of *tirni* and *bua* by the villages in the Khattak tract of the tahsil, which culminated in 1902 in the departure of some of the villages in the Darra Circle across the border, has been described in the Assessment Report. It was put a stop to by firm measures and the passing of the Teri Dues Regulation, No. IV of 1902. The recalcitrant villagers returned to their homes, and were made to pay up all arrears. Large sums in hopeless arrears from other villages, which had not carried their opposition so far, were remitted by the Khán in open *da'bár* in 1904. The assessment and collection of the dues were put on a regular footing by Rules notified in March 1904. Since Kharif 1903 the enumeration of the animals liable to *tirni* and of the houses liable to pay *bua*, has been carried out at the *kharif girdawari* by the ordinary revenue establishment. The persons exempt from the dues are now properly defined, and interference by the Khán's private underlings is forbidden. These changes were necessitated by the fact that the Khán found it impossible to collect the dues of his own authority. Government, having had to intervene, determined to do so in a thorough manner. The Khán ostensibly demurred that one of the few remaining vestiges of his old authority was being taken away. In reality, he was only too pleased to see an assured income take the place of a variable demand, a great part of which was never realised. The dues can now be collected as arrears of ordinary land-revenue.

The average demand of the five years preceding the introduction of the new system, and the subsequent assessment are shown as below:—

	Average, 1898-99 to 1902-03.	Demand, 1903-04.	Demand, 1904-05.
	Rs.	Rs.	Rs.
<i>Tirni</i>	7,120	8,123
<i>Bua</i>	5,786	6,078
<i>Kulhári</i>	490	<i>Nil</i>
Total	13,396	14,201
			11,862

The new rules for assessment and collection were not ready early enough to be fully understood and put in force in 1903-04. In the Assessment Report I estimated the probable income from the dues as Rs. 8,000 for *tirni*, Rs. 4,000 for *bua* and Rs. 490 for *kulhári*. I now put the estimate for all three dues together at Rs. 12,000. The estimate framed in 1895 at the Khattak Settlement was Rs. 7,970. The difference is not so striking as the fact that the demand is now realised, which it was not before. There are no arrears of any importance at present, and there is no reason why any should accumulate.

In addition to his *tirni* from the Khattaks, the Khán gets a similar due from nomad Khujal Khel Wazirs, who come to graze in the tahsil each winter. The income may be put at Rs. 500 per annum.

64. Another very troublesome question connected with the administration of the Teri Tehsil, is that of the revenue free grants held by members of the Akor Khel. The enquiry into their status, commenced at the Khattak Settlement, was not brought to a close until July 1898. A history of the case has been given in paragraph 18 of the Teri Assessment Report, and need not be repeated. The final orders were that as regards rights to land-revenue, the position of *muafidars* and assignees of all classes had all along depended on the forbearance of the Khán, and that their tenures would in future be held subject to the pleasure of the Khán, to whom are due from them loyalty, obedience and service. There is bad blood between most of the members of the family and the present Khán, who is becoming more and more grasping and miserly in his old age, and frequent complaints are being brought by the junior members of the family that they do not get their rights. However, I have failed to see any symptoms of "loyalty, obedience and service" on their part towards the Khán, and at the same time I have discovered no signs of his attempting to resume grants to which a sort of prescriptive

right may be said to have grown up. On the contrary, Khán Abdul Ghafur Khán only the other day, in September 1905, restored to Mussammat Memna, the widow of the late Khán, grants worth over Rs. 450, with a generosity she certainly did not deserve after the litigation she had involved him in from 1897 to 1903 by the absurd and vindictive claim she set up to the lands which attach to the Khanship. At the same time a grant worth Rs. 2⁵ in Láchi Bálá was restored to Khánzáda Sultán Mahomed Khán and his relatives, which had been resumed in 1900 for three years at the suggestion of the Deputy Commissioner on account of the looting of the Láchi Thána.

In the Teri Assessment Report I gave in appendix H a list of the Akor Khel revenue free and jágir lands. This list has been brought up to date by showing the results of the new assessment in appendix No. IV attached to this report. It shows that:—

	Rs.
The grants held by Nawábzádas are now worth	11,883
" " Khánzádas " " 	1,274
" " Akor Khels " " 	564
and the total sum at present released by the Khan is ...	13,721

These figures include the *talukdári* mentioned as assigned in the previous paragraph. This sum is a little more than one-eighth of the total revenue of the tahsil, and if we deduct the Khán's quit rent, we find that the Akor Khels absorb over 15½ per cent. of the net revenue: a very liberal proportion indeed.

Appendix No. III gives the details of the land declared by judicial decisions to attach to the Khanship. The total area is 26,885 acres of which 5,007 acres are cultivated, and the revenue assessed on the property including *taluqdári* is Rs. 3,607.

65. The grant and resumption of petty revenue assignments in the Teri
 Minor assignments in Teri and the Khan's income. Tahsil is entirely in the hands of the
 Khan under the general supervision of the Deputy Commissioner. No investigation has now been made into existing assignments. The fact that any particular sum of revenue is at present assigned has been noted in the ordinary way in the village papers. All such grants are entered as held at the pleasure of the Khán. The Deputy Commissioner is kept informed of new grants and resumptions by means of six-monthly statements submitted by the Tahsildar through the Khán. The Tahsildar does not act on the Khán's orders of resumption until the list has been passed by the Deputy Commissioner, who is at liberty to make suggestions to the Khán when he thinks fit. Unnecessary interference in this matter is to be deprecated, and no excessive scrutiny and picking of holes, such as the revenue subordinate loves, should be permitted. During the settlement I have tried to confine my interference to cases in which, owing to the Khán's dilatoriness, the burden of arrears of a resumed assignment has become greater than it would be fair to exact. In such cases I have permitted resumption from the date of the Khán's report only. If he wishes to prevent this small amount of interference, the remedy is in his own power.

These minor assignments in Teri are of three kinds—*muafis*, *ináms* and *biráts*, corresponding in a *khalsa* tahsil to ordinary revenue-free tenures, zamindari *ináms* and lambardari *ináms*, respectively. Excluding the sum of Rs. 367 enjoyed as cash *ináms* by certain Akor Khels, the amounts so assigned under the new assessment are:—*muafis* Rs. 1,307, *ináms* Rs. 2,531 and *biráts* Rs. 2,006. The total sum of Rs. 5,844 is almost 6 per cent. of the land-revenue proper (Rs. 97,904). *Taluqdari* is not included in these assignments. The *ináms* and *biráts* are gradually decreasing as the Khán does not continue many such grants after the death of the holder. The *muafis* are more permanent, being to a great extent religious endowments. The more important of these *muafis* are those held by the Sayads of Sarúj Khel (Rs. 430), Shewa Hindu Kush (Rs. 217), Sheikhán (Rs. 153), and Rési (Rs. 116), and the Muhabbat Khels of Dab and Tirán Kuha (Rs. 177).

The sum recovered by the Khán of Teri in land revenue under the new assessment is therefore:—

Circle.	*Net new assessment.	Akor Khel grants.	Ináms.	Biráts.	Petty muafis.	Recoverable by the Khan.
Seni Khwarram	Rs. 22,878	Rs. 8,800	Rs. 11	Rs. ...	Rs. 251	Rs. 18,816
Darra	22,782	9,379	96	...	197	13,110
Nari-Chauntra	27,791	671	1,998	1,135	894	23,695
Thal	25,898	471	251	840	...	24,186
Lawaghar	8,197	...	175	31	466	2,526
Tahsil	1,01,840	13,721	2,529	2,006	1,307	82,283

When the temporary remissions given for three years lapse in Kharif 1907, the recoverable revenue will increase to Rs. 88,174. Under the old assessment the Khán recovered Rs. 71,243. The immediate increase in his revenue is therefore Rs. 11,000 and he will eventually gain Rs. 17,000 by the re-assessment. He now pays the full sum of Rs. 20,000 for which he holds the lease of the tahsil. His net gain has been Rs. 9,000 and will be Rs. 15,000. This will rise slightly as *ináms* and *biráts* are resumed and the protective leases granted on new wells fall in.

This subject may be usefully concluded by giving a revised estimate of the Khán's income, bringing that given in paragraph 74 of the Assessment Report up to date.

ESTIMATED INCOME 1905.

Rs.

Recoverable income from land revenue and taluqdari	...	...	82,280
Tirni, bua, and kulhari dues realized in the tahsil	...	...	12,000
Tirni realized from wazirs and other outsiders	...	...	500
The Khán's salt inám	...	...	10,000
Income from mutation fees	...	...	1,500
Proprietor's share of income from land attaching to Khánship	...	...	3,600
Total	...	...	1,09,880

EXPENDITURE 1905.

Quit rent	...	...	20,000
Pay of tahsil establishment including contingencies (raised to allow for increased cost of kanungos and their pensions)	...	...	7,000
Khán's Border Police (26 men or so)	...	...	1,880
			28,880
Net income	...	...	81,000

In 1908 the Khán's income should be about Rs. 87,000. My previous estimate was Rs. 90,000 but that was based on a proposed land-revenue assessment of Rs. 1,12,000, whereas the new full revenue is Rs. 1,08,000. The amount assigned to Akor Khels is practically what I anticipated, but there is a saving in *ináms*, *biráts*, and petty muafis which covers the increased expenditure by Rs. 1,000.

66. There are no zaildars, or alá-lambardars in the district. It has all along been considered inadvisable to risk embittering old feuds and perhaps raising new ones by attempting to create such a class.

Mr. Tucker in paragraphs 397 and 398 of the Kohat Settlement Report drew attention to the excessive number of lambardars there were in the district. More especially was this the case in Bar Miranzai where there were actually villages like Nariáb and Darsamand with 42 and 38 lambardars respectively. It was to be expected, and it is almost necessary that there should be a large number of lambardars in big villages where the people live in scattered hamlets such as Shakardarra (26), Shinewa Gudi Khel (26) and Thatti Nasrati (29). Even there

* Vide column 6 of statement in paragraph 43. Temporary remissions and protective leases on wells are deducted.

it has been found that the number is capable of reduction, but in compact, though large villages like the Bar Miranzai ones, where all the people live within one walled enclosure, the lambardari system was rendered an absurdity by the subdivision of responsibility. Every little sub-section of a sub-section claimed to have a right to a separate lambardar or *malik*. The majority of the men so set up as head-men were persons of no substance or influence, and have naturally been of little or no assistance to the authorities in dealing with crime or in the administration generally.

Although in Bar Miranzai Captain Hastings, when confirming the then existing lambardari arrangements expressly noted in almost every village that the settlement was only a summary one, and that opportunities to reduce some of the posts, when vacancies occurred, should not be lost sight of, nothing whatever was done in this direction until the present settlement began. To similar notes left by him and Mr. Tucker in the case of villages here and there over the rest of the district equally little attention was paid. After considering the position for sometime and becoming more and more convinced of its unsatisfactoriness, I submitted proposals in September 1902 for the reduction of useless lambardaris. The Revenue Commissioner North-West Frontier Province, in his letter No. 1732-G., dated 14th October 1902 conveyed sanction to (a) "the preparation of a general scheme for the reduction as vacancies occur in the number of lambardars in the district generally, where the number is excessive and such excess leads to grave inconvenience in the revenue and criminal administration," and (b) "to the immediate reduction subject to the above conditions in the number of lambardaris in the Bar Miranzai Circle where no Regular Settlement has yet been made, and the arrangements made by Captain Hastings at the Summary Settlement were provisional and subject to revision at the Regular Settlement," with the proviso that "in the revised arrangements as proposed in the case of (a) and given effect to in the case of (b) each important section of an estate whether *kandi* or *tal* shall be adequately represented."

In accordance with these instructions I proceeded in November 1902 to thoroughly revise the lambardari arrangements in Bar Miranzai. The result was that in Nariáb for instance the number of lambardars in Nariáb *khás* was reduced from 31 to 15 some of whose posts will also disappear when they die; the other 11 old posts were in the hamlets of Chapri and Shinawari and were separately dealt with. Similar action was taken in the other villages of Darsamand and Thal where the numbers were excessive. There was some little excitement at first, and persons were not wanting who had misgivings as to the ultimate effect on the peace of the tract. But when it was found that my action was supported on appeal and that the orders were final, the people very soon settled down to the new state of things, and now I think few would be found to dispute the advantage which has been gained. The lambardars who were retained in their posts have more influence, and the villages are freed to some extent of a crowd of needy representatives eager to sell such power as the position of lambardar gave them to the highest bidder. To ease off the position to men who were removed from posts, they were declared to be personally free from *kar begár* for their lives. Most of them were quite satisfied with this.

In the rest of the district reductions have only taken place where vacancies fell in, and there of course only where reductions were possible and advisable. My general scheme for reductions has taken the form of a note drawn up for each village by myself, showing the history and constitution of the village, the relationship between the *kandis* and *tal*s and the connection between the lambardars in each *kandi*, *tal* or *wand* (in Teri), where there were more than one. This at once shows which sub-divisions are over-represented, and suggestions for reducing the junior posts, as opportunity offers, have been made accordingly.

The work was rather laborious, but the inspection of a village for assessment purposes afforded a convenient occasion for reviewing the list of lambardáris and having it brought up to date. Once the notes were written, I found that work in connection with lambardári cases was much lightened. All changes in lambardáris occurring subsequent to the date of the notes are entered on them, and latterly, when a petition was presented about a lambardári, I could as a rule dispose of it at once by referring to the order by which the case had already been

settled. The saving of time and trouble to officials and to the parties themselves as compared with the usual form of calling for a report from the tahsil was incalculable. Moreover the prompt rejection of petitions re-opening settled cases had an excellent effect in reducing such petitions almost to vanishing point. But the Kohát zamindár will never take "no" for an answer. As soon as I have left the district I expect a number of the dismissed lambardárs and the relatives of dead men, whose posts have been reduced, will attempt to reopen the cases. There were signs of this commencing while I was absent from the district in 1905. Fresh attempts are made at every change of Deputy Commissioner. This is not peculiar to Kohát, but we have now in these lambardári note-books, of which there are three—one for each tahsil—a ready means too hard for repressing this tendency and nipping in the bud the unsettling effect repeated enquiries into cases always have. Captain Waterfield, the present Deputy Commissioner, puts a high estimate on the assistance these note-books can be to the district officer, and I would strongly urge future Deputy Commissioners to have them put up for reference whenever dealing with papers connected with lambardári arrangements, and to keep them up to date by entering short notes of the purport of their orders at the time they are passed. In fact unless the note-books are referred to, the work of reducing unnecessary posts will cease, and unless they are kept up to date, they will not continue long to be of much assistance, and the labour spent in preparing them and in getting the facts straight—a considerable item—will have been wasted.

The reduction of excessive posts is of course a matter in which progress is very gradual. The following table shows what has been accomplished:—

NUMBER OF POSTS.						
	At last Settlement.					Now.
Kohát Tahsil	342
Hangu	„	282
Teri	„	725
District	1,849
						1,247

The transfer of the villages of Sumári Bálá, Sumári Páyán and Jabbi, with 21 lambardárs, from Hangu to Kohát explains the discrepancy between the figures now given and those quoted in the old Settlement Report. Altogether according to these figures 102 unnecessary posts have been reduced. The previous Settlement Reports show that at the Kohát Settlement, the number of lambardárs was allowed to go up from 299 to 342; while in Bárak the number was reduced from 431 to 370; in Khattak there were no real lambardárs previous to settlement, where 355 men were appointed. We have not got down to the original Kohát figures yet but progress will, it is hoped, be steady from now onwards.

In the Teri Tahsil, the orders of Government on the Bárak Assessment Report were that the initial appointments were to be made by the Settlement Officers, and that subsequent appointments and removals should rest in the hands of the Khán of Teri, on condition that all changes were intimated to the Deputy Commissioner, who could call for explanations when necessary, and in extreme cases might require the Khán to cancel or modify his orders. The same system was continued in the Khattak tract. Mr. Tucker at the time pointed out that, with the introduction of an organised police and regular revenue arrangements, no system was workable which took the lambardárs out of the hands of the Deputy Commissioner. In practice it has come about that vacancies are filled up by the Deputy Commissioner on the Khán's report, who in lambardári cases takes the place of the Revenue Assistant between the Tahsildar and the Deputy Commissioner, with the proviso that the Khán's recommendations are only disregarded when obviously wrong or contrary to rule. Except for the delays which take place in the Khán's office in forwarding cases, this system now works well enough. The Khán's proposals are often very contradictory, and sometimes appear even childish, but as long as the Deputy Commissioner sees that the Land Revenue Rules are acted up to, no great hardship can take place, and the system requires no immediate modification.

67. From the 1st January 1905, the kánungos in the Teri Tahsil, who are paid by the Khán of Teri, and who until then had held non-pensionable posts, were brought on the regular establishment. The Khán agreed to pay the small extra cost of their pension and leave contributions. The grant of an annual increment of Rs. 4 per mensem to the district kánungo, and the raising of the pay of office kánungos to Rs. 40 per mensem from the 13th March 1905, have greatly increased the prospects and attractions of the service.

* Government of India letter No. 817 F., dated 7th March 1906.

The kánungo establishment sanctioned* for the district is now :—

	Monthly cost.			Rs. a. p.
1 Sadr kánungo at Rs. 60—4—80	75 0 0 average.
4 Office kánungos at Rs. 40 each	160 0 0
7 Field kánungos—2 at Rs. 30 each and 5 at Rs. 25 each ...				185 0 0
7 Field allowances—2 at Rs. 10 each and 5 at Rs. 5 each ...				45 0 0
7 Stationery allowances at 8 annas each	3 8 0
Total cost	468 8 0	per mensem.

The Khán of Teri contributes a sum of Rs. 136-8-0 (excluding pension and leave contributions) towards the pay of the kánungos employed in the Teri Tahsil.

One of the office kánungos is employed as assistant to the sadr kánungo. The staff of field kánungos was increased by one man from 1st January 1905 in order to permit of the abolition of the old *mirabi* establishment, which was employed to look after the irrigation round Kohát. This duty is now discharged by the two field kánungos stationed at Kohát, one of whom is in charge of the villages in the China Circle and those on the right bank of the Toi in the Toi Circle, and the other is in charge of the villages irrigating from the left bank. The third Kohát kánungo is stationed at Gumbat, and is in charge of the outlying portions of the Kohát Tahsil and a small portion of Teri. The Hangu Tahsil forms the charge of one field kánungo. The three Teri kánungos are stationed at Láchi, Teri, and Kark. The limits of the seven circles are shown in map No. II attached to this report.

The strength of the patwári staff has been considerably increased owing to the settlement and the pay and prospects of the men greatly improved. There used to be 76 patwáris and 7 assistant patwáris, arranged in grades and drawing pay at Rs. 14, Rs. 12 and Rs. 10 for the patwáris, and Rs. 8, Rs. 7 and Rs. 6 for the náibs. The district is an unpopular one and it is difficult to get suitably qualified men to stay in it. The grading of the staff was bad, especially in Teri where the patwár fund was poor.

The new grading and pay introduced from 1st January 1905 is as follows :—

Patwáris.	Kohat.	Hangu.	Turi.	District.	Annual cost.
1st grade on Rs. 15 ...	10	6	14	30	Rs. 5,400
2nd " " 12 ...	10	6	14	30	4,820
3rd " " 10 ...	12	6	12	30	3,600
Total ...	32	18	40	90	13,820
Náib patwáris on Rs. 8 ...	2	5	3	10	960
Total ...	...	...	...	...	14,280
Contingencies ...	...	...	...	...	1,000
Total cost ...	...	...	...	...	Rs. 15,280 per annum

The naibs are stationed in the large villages such as Shakardarrā, &c. The establishment is at present in a very efficient condition, having just passed through the strain and stress of a settlement. Of the original 83 men who were here in 1899, 24 were dismissed, 5 died, 10 resigned and 6 were promoted, so that only 38 remain. The remaining posts have been filled up from the settlement staff. The proportion of casualties was heavy, and the register of patwāri candidates is depleted, but steps are being taken to bring it up to strength by enrolling men from other settlements, e.g., Bannu.

68. The cost of the settlement operations as shown in Statement No. 4 for the period 1st October 1899 to 31st March 1906 is Rs. 3,14,000. Out of this

Cont of Settlement. a sum of Rs. 38,400 has been calculated as due from jágirdárs as their contribution towards the cost of the re-assessment. The Khán of Teri's share alone comes to over Rs. 28,000. As these amounts are so large I have recommended separately that only Rs. 24,900 be recovered of which Rs. 20,000 will be payable by the Khán. Adopting this figure the cost to Government of the settlement will be Rs. 2,89,100.

The increased assessment recoverable by Government has been seen in paragraph 51 to be Rs. 59,600, but of this a sum of Rs. 11,465 has been remitted for three years. Even allowing for this, the cost of the settlement will be entirely recovered from the increase in revenue within six years. Much better results could hardly be expected in a district in which the proportion of cultivation is so small, and in which 56 per cent. of the land-revenue used to be, and 48 per cent. is still assigned to jágirdárs and muafidárs great and small.

The Kohát Settlement has also to be given credit for the increase from Rs. 3,082 to Rs. 5,000 in the land-revenue of the Khwarra-Niláb Circle of the Nowshera Tahsil in the Peshawar District which was re-assessed by me in 1901. A further increase from Rs. 584 to Rs. 1,266 was obtained by the revision of the tárni assessment in Khwarra. Owing however to the fact that the Niláb portion of the tract is held in jágir by Abdullah Khán of Jabbi-Manduri, and assessed at Rs. 4,000 out of the Rs. 5,000 on the circle, the actual recoverable increase was only about Rs. 1,000 per annum.

A considerable portion of the credit of the very lucrative Kurram Valley Settlement should I feel be taken by the Kohát Settlement, which furnished most of the staff, headed by its Extra Assistant Settlement Officer, to carry out the work when they could ill be spared here.

69. This circle consisting of 7 small villages occupied by Rabia Khel and Akhel Orakzais has been measured but not assessed to land revenue. Under the

The Samána Circle. Chief Commissioner's instructions no assurances, one way or the other, were given to the people as to whether land revenue would or would not be imposed. In the agreement entered into by the tribes after the Miranzai Expeditions, it was stipulated that 8 annas per house per annum should be realized as rent from the villages and hamlets, and that in the event of misconduct Government should have the right to raise the amount of the rent. For the present the tribesmen continue to pay the 8 annas rent. It is credited as miscellaneous land revenue. The circle therefore remains under a sort of Summary Settlement at present.

The amount of this rent for the last five years has been:—

			Rabia Khela.	Akhel.	Total.
			Rs. a. p.	Rs. a. p.	Rs. a. p.
1899-1900	...	...	115 8 0	91 8 0	207 0 0
1900-01	...	...	117 8 0	85 8 0	203 0 0
1901-02	...	...	116 8 0	105 0 0	221 8 0
1902-03	...	...	109 0 0	78 0 0	187 0 0
1903-04	...	...	108 0 0	78 0 0	186 0 0
Average			113 8 0	87 8 0	201 0 0

The rent is collected through the tribal *maliks* by the Border Police. The division of the country into revenue estates has been too recent to have been given effect to in this matter of rent. The Deputy Commissioner will shortly appoint regular lambardars, and the house tax will doubtless then be collected by villages and not by tribes.

The people took the measurements quite peacefully, but mournfully admitted among themselves that they were certainly an ominous sign of the introduction of a revenue assessment at some later date.

70. The Settlement has lasted a good deal longer than was expected at its commencement. It began nominally in

Notice of officers.

October 1899, but I was unable to join

until the end of January 1900, and the Extra Assistant Settlement Officer, Lala Ganga Sahai, did not arrive until after the middle of February. The Settlement Tahsildars had started work under the Revenue Assistant, Mahomed Azim Khan, who had been employed in the Khattak Settlement, but March 1900 should be regarded as the real date of commencement and September 1905 as the date of closing the assessment proceedings. With the exception of three months' privilege leave in 1901, when Lala Ganga Sahai acted for me, and $8\frac{1}{2}$ months from 15th November 1904 to 1st August 1905, when I was employed with the Indian Survey Committee, I have been in charge of the operations throughout.

Captain R. C. Waterfield, Deputy Commissioner of the district, held charge of the settlement in addition to his own duties during my absence in 1904-05. The Teri assessments were announced in October 1904, so that besides carrying on the ordinary daily work of the settlement, the duty of supervising the *bāchh* in that tahsil fell to his lot. He also heard the applications for revision of the mill revenue announced in November 1904. I am also indebted to him for clearing off some arrears of lambardari and other work, and for his general hearty co-operation during the last $2\frac{1}{2}$ years.

Of the assistance given to me by my Extra Assistant Settlement Officer I cannot speak too highly. Lala Ganga Sahai, though a complete stranger to these parts, soon won the confidence of the people by his straightforwardness of purpose and his integrity, and amply justified his selection for the post. His great industry and reliability made him an excellent co-adjutor in the trying work of supervising the subordinate establishment. In April 1904 he was unfortunately taken away from the district to do the settlement of the Kurram Valley where he has gained golden opinions. Had I known at the time what the winding up of a settlement meant, I would have protested more strongly than I did against his removal. To this cause must be attributed part of the lengthened period spent in finishing the operations. Fortunately Lala Ganga Sahai was able to complete his attestation of the *wājib-ul-azr* and *riwaj-i-abpāshi*, to which I have already referred, after his transfer to the Kurram.

His place as Revenue Assistant of the district was taken by Arbab Mir Ahmed Khan, Extra Assistant Commissioner, but he had little to do with the brunt of the settlement work. He attested the *riwaj-i-am* last cold weather, and did what work I gave him well. But his ignorance of English prevented him, though anxious and willing, from assisting me to the extent I had grown accustomed.

Of the Settlement Tahsildars, Munshi Sant Singh was in charge of the Kohāt and Hangu Tahsils. He is an experienced officer who has spent all his life at settlement work and his knowledge of detail is at times bewildering. A strict conservative as regards innovations, he has a considerable power of getting work pushed through. Pandit Sarup Narain was Settlement Tahsildar of Teri at the start. He was however taken away to the Revenue Commissioner's office on the formation of the new Province in October 1901. He is an extremely able and hard-working officer, and it is due to him that the re-measurement of the Bārak tappa was commenced on an excellent system. He was succeeded by Munshi Ghulām Mohi-ud-din, who fully justified his promotion from Settlement Nāib Tahsildar by the quiet and successful manner in which he carried out the work of completing the re-measurement of Bārak and Shakardarra, and the revision of the record-of-rights for the whole Teri Tahsil. I got little or no work out of the district tahsildars and for the greater part of the settlement the Bahādur Khel Circle was the only part of the district not supervised by the settlement officials.